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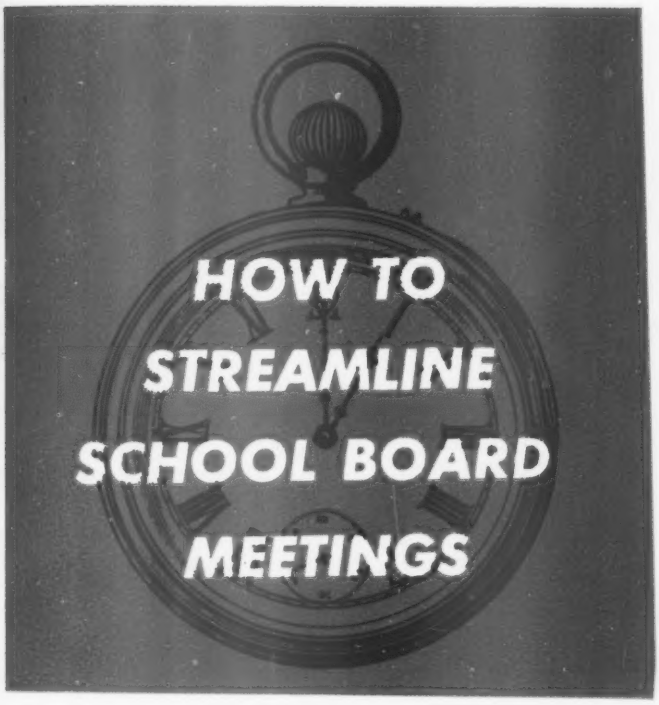
SCHOOL MANAGEMENT

May 1958

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS



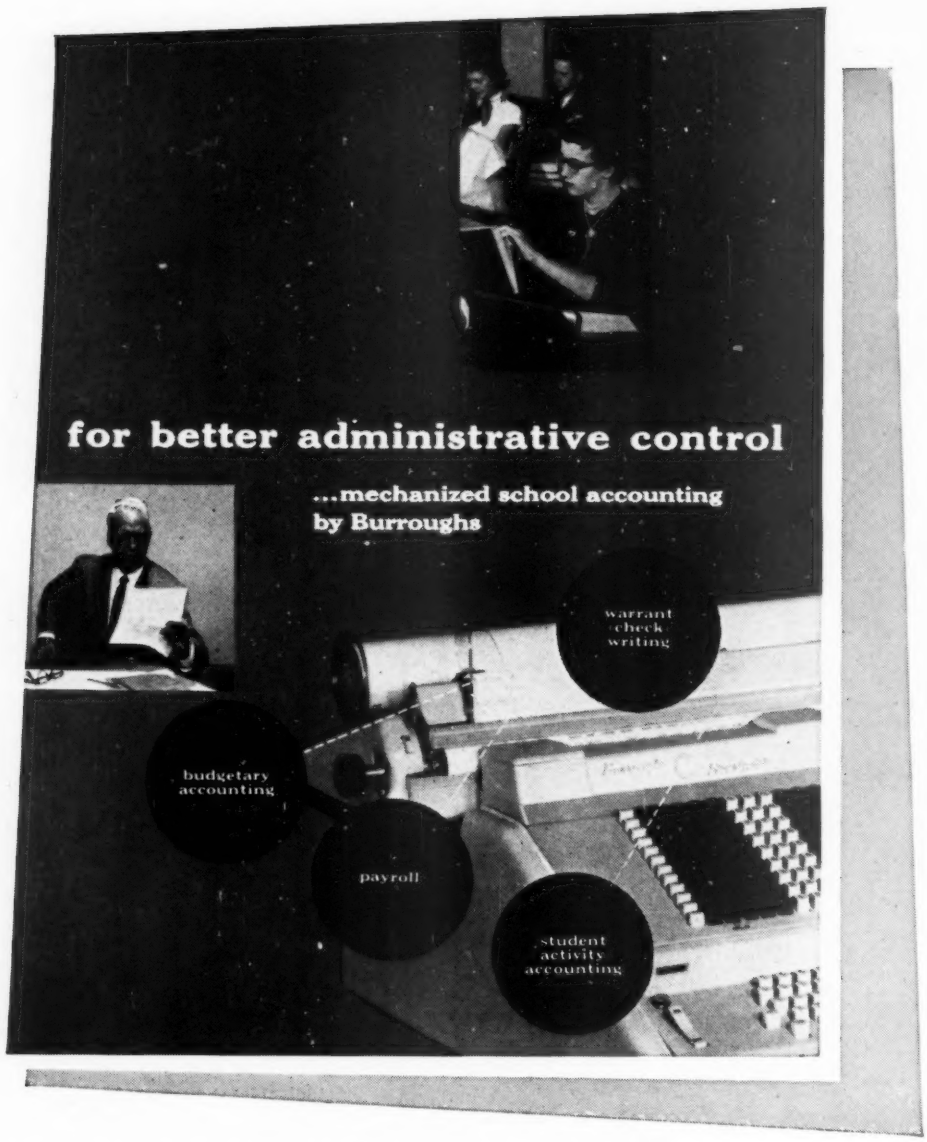
SINGLE STORY
VS.
MULTI STORY

WHICH IS CHEAPER?

How one district is solving its

Teacher-Classroom Shortage

SEE COMPLETE CONTENTS ON PAGE 3



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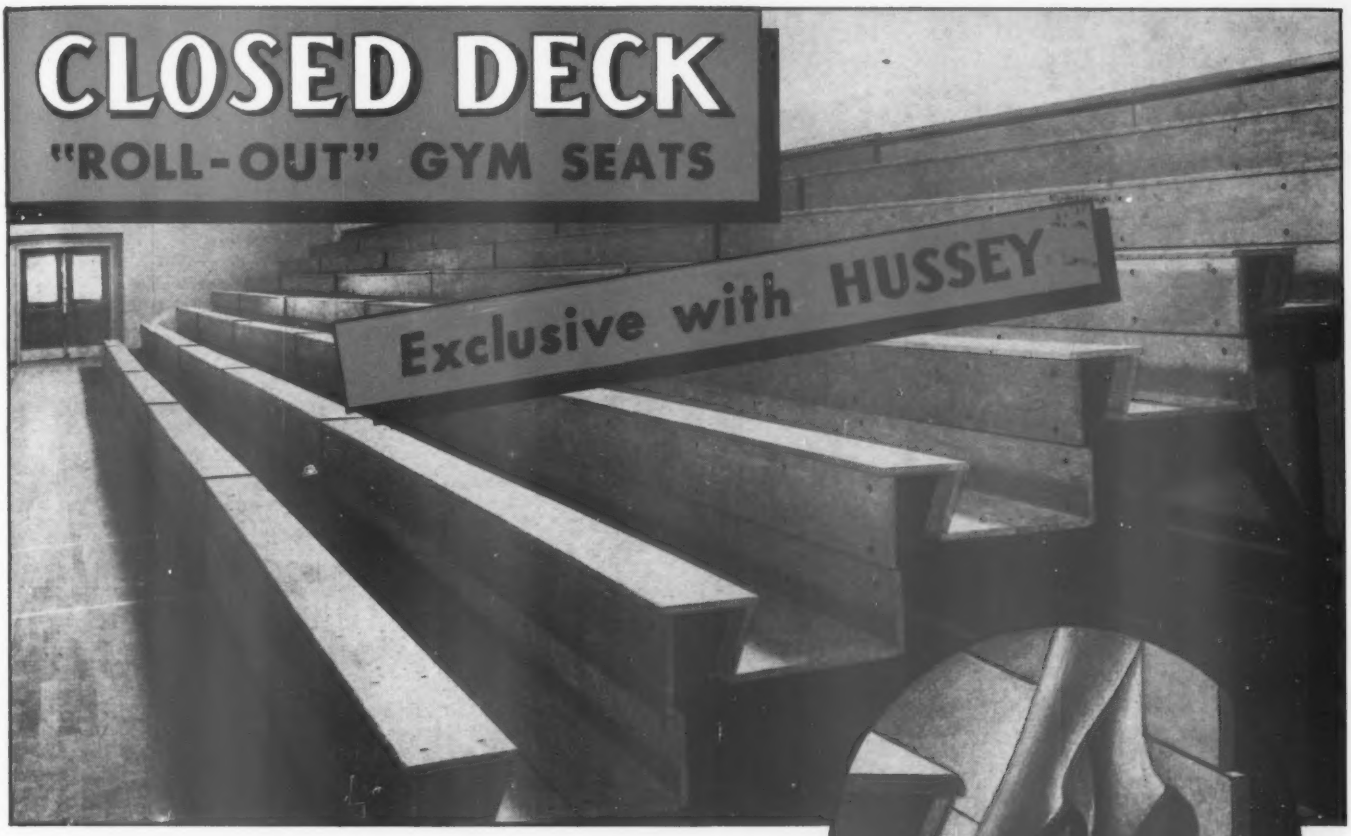

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Directing the operation of the school's heating and ventilating system is a specially planned Johnson Pneumatic Temperature Control System. On the wall of each room, a Johnson Thermostat determines the exact heating and ventilating effect necessary to keep the occupants comfortable at all times. The result is a consistently stimulating thermal environment that keeps students alert and encourages more productive work and study.

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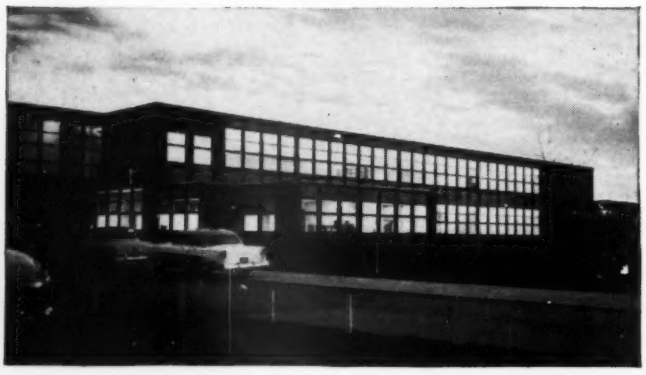

Marion-Franklin School, Columbus, Ohio. Tibbals-Crumley & Musson, architects; R. Curl & Assoc., mechanical engineers; Robert W. Setterlin & Sons Co., general contractor; Jack Stephens Plumbing & Heating Co., mechanical contractor, all of Columbus, Ohio.

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(For more information, see last page)

Vol. 2 No. 5

S | M

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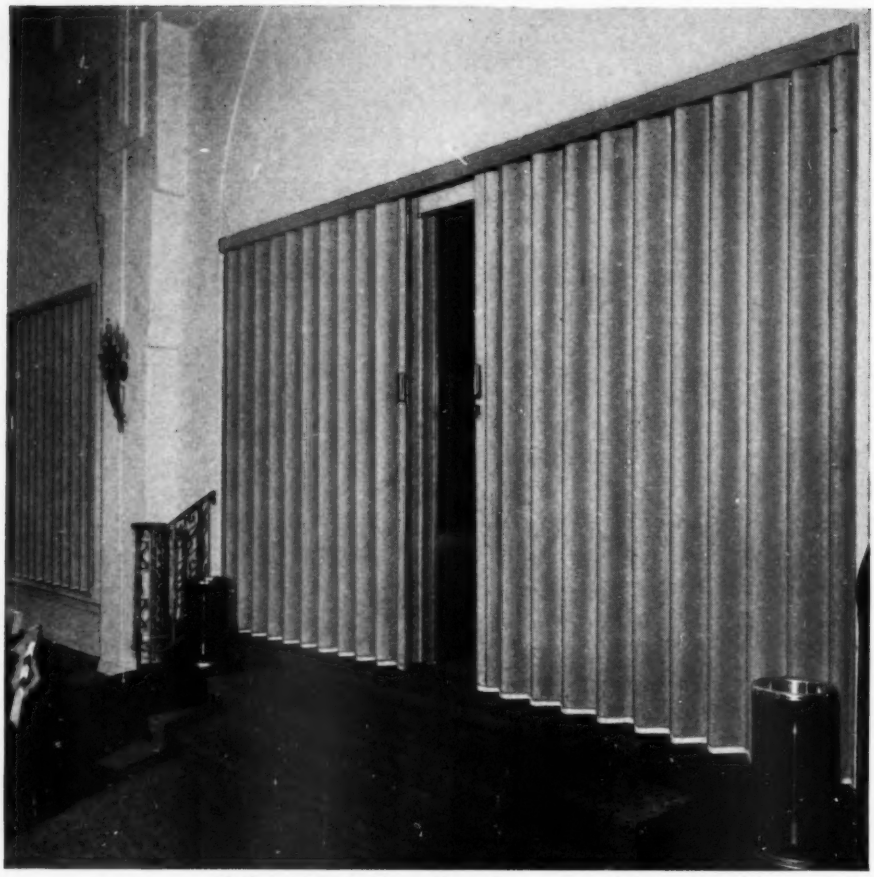

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(For more information, see last page)

SCHOOL MANAGEMENT

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Publisher
Jerome W. Harris

President
William S. Kline

EDITORIAL STAFF

Editor: Jerome W. Harris
Managing Editor: Paul Abramson
Feature Editor: J. Thompson Root
Departments Editor: Alice Honore Drew
Art Director: Laurence Lustig
Production Manager: Joan Longnecker
Advertising Prod. Mgr.: Sherman Laire

BUSINESS STAFF

Business Manager: Edwin D. Kline
Circulation: Marie M. LaGuardia
Office Manager: Edith P. Acquavella

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Advertising Offices

New York 141 East 44th Street, MU 7-0583
Charles L. Dermott—Gil Hand—Harrison M. Rollins

Chicago 612 North Michigan Avenue, Del 7-0112
Western Division Manager: William S. Hutchings
Western Advertising Manager: Alfred A. Spelbrink—John Hynes

Los Angeles The Robert W. Walker Co., 730 South Western Avenue, Dunkirk 7-4388

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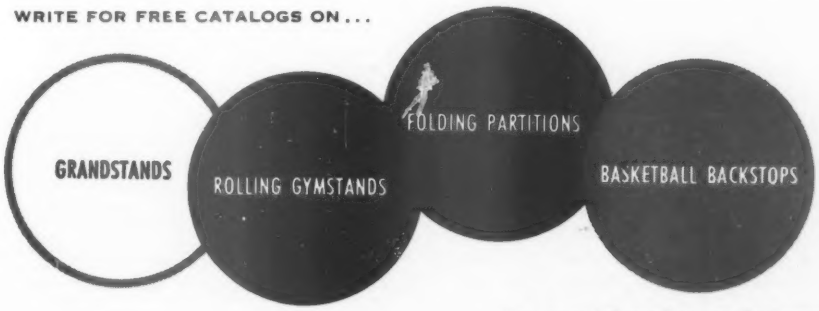

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(For more information, see last page)

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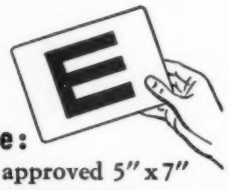

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(For more information, see last page)

Practical methods

SIR: We are most appreciative for the subscription to SCHOOL MANAGEMENT. Almost every article has had suggestions that could be applied to our local situation. Your magazine is so practical, and that is what we want, ideas that actually have been tried, and are past the theoretical stage.

We, too, would like some good practices organizing and conducting combination classes.

Do you have some good tried methods for an efficient playground situation, where space is rather limited, and the children are divided thus: Grades one to three on one side, and grades four to eight on the other?

JOHN H. THOMPSON
PRINCIPAL, RIVERVIEW SCHOOL
WICHITA, KANSAS

■ *A story on the utilization of playground space is on the calendar for a future issue of* SCHOOL MANAGEMENT. *We would welcome any comments from other districts that may have successfully solved the problem posed by Mr. Thompson.* ED.

The NEA and television

SIR: I would like to congratulate you on including an article on closed-circuit television in your March issue of SCHOOL MANAGEMENT. The article gives clear-cut information to the lay reader on many aspects of the subject, including a concise description of the research and experimentation.

I do take strong exception, however, to an initial statement in the article which describes the National Education Association as being "openly antagonistic toward classroom video." The article maintains, further, that "they [the NEA] see TV teaching as a means of eliminating jobs through the use of oversized classes." The record does not substantiate this at all. From the very beginning, the NEA has been consistent in its advocacy of research and experimentation with the educational uses of television. It has supported conferences and workshops for educators on the subject. Almost every one of its 30 affiliated departments has in recent years devoted one or more sections of its convention programs to a consideration of television and its application to current problems. Furthermore, the NEA now has a staff member designated as "Educational Television Consultant". I have recently had the honor of being the first appointee.

Last September, the NEA invited some of the nation's outstanding instructional leaders and educational broadcasters to a seminar at NEA headquarters to study the teaching-learning process in relation to the utilization of television and to develop guidelines for experimentation for the immediate years ahead. This group worked together for five days to develop an educationally acceptable point of view relative to using sound teaching and learning principles in the production and utilization of educational television.

At the conclusion of the seminar, a statement was made by a sub-group speaking for the conference which accurately points up the NEA's position:

"It is the considered judgment of this seminar that televised education cannot be intelligently adjudged a panacea to meet current educational problems. Carefully nurtured, however, it should become an important aid to the improvement of education. . . .

"There is real peril that educational television may be rejected if it fails in practice to live up to unwarranted claims offered by some proponents. Like every other educational medium, television must be subjected to rigorous study and research. Its use should thereafter develop under careful planning by thoroughly qualified professional and technical personnel so that educational standards may be safeguarded. The educational profession should accept its true role of leadership in connection with this development. Ways and means must be discovered by educational leadership to give instructional television constructive support and development and so salvage this important educational communications medium from the imminent danger of extreme statements. . . .

"The inherent characteristics of television make possible certain educational experiences and advantages heretofore unavailable to schools. Because of this, television is emerging as an instrument of great value in education."

I think you will agree that this is a very constructive and sound approach to the role of this new medium in education. It can hardly be called "antagognistic.

HAROLD E. WIGREN
EDUCATIONAL TELEVISION CONSULTANT
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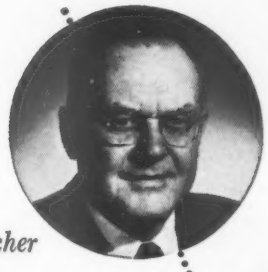
SIR: You have a good feature in SCHOOL MANAGEMENT on educational

school superintendent



teacher

school physician

school nurse

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. . . they've discovered how one Beltone audiometer makes student hearing tests faster and more accurate!

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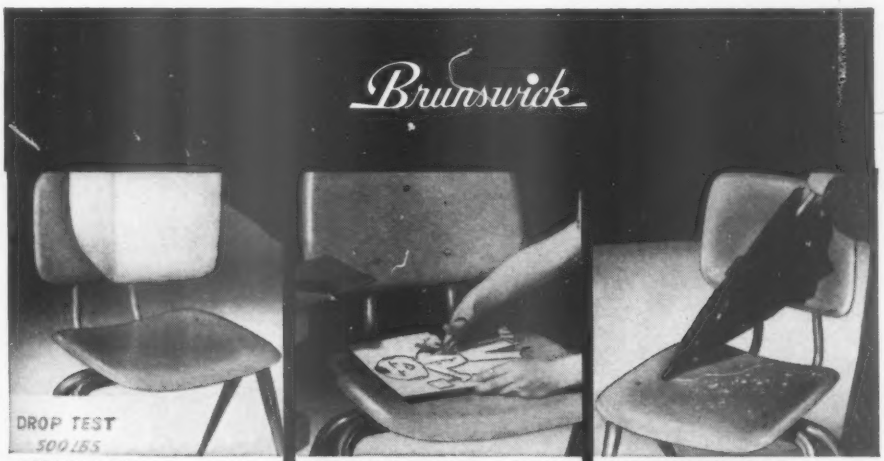

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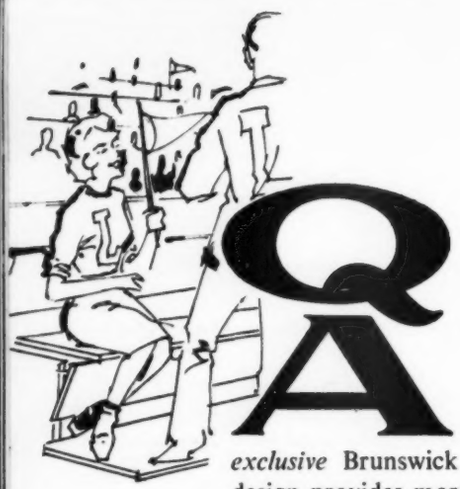

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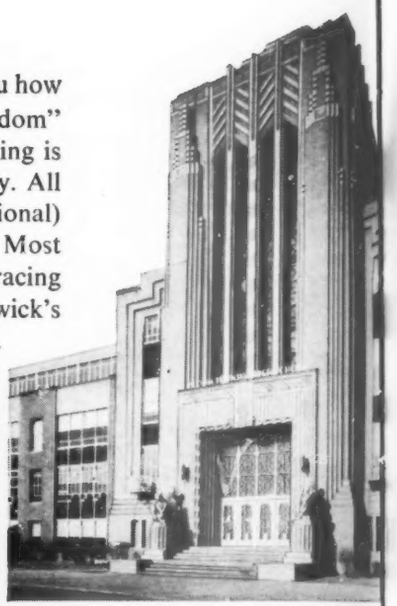
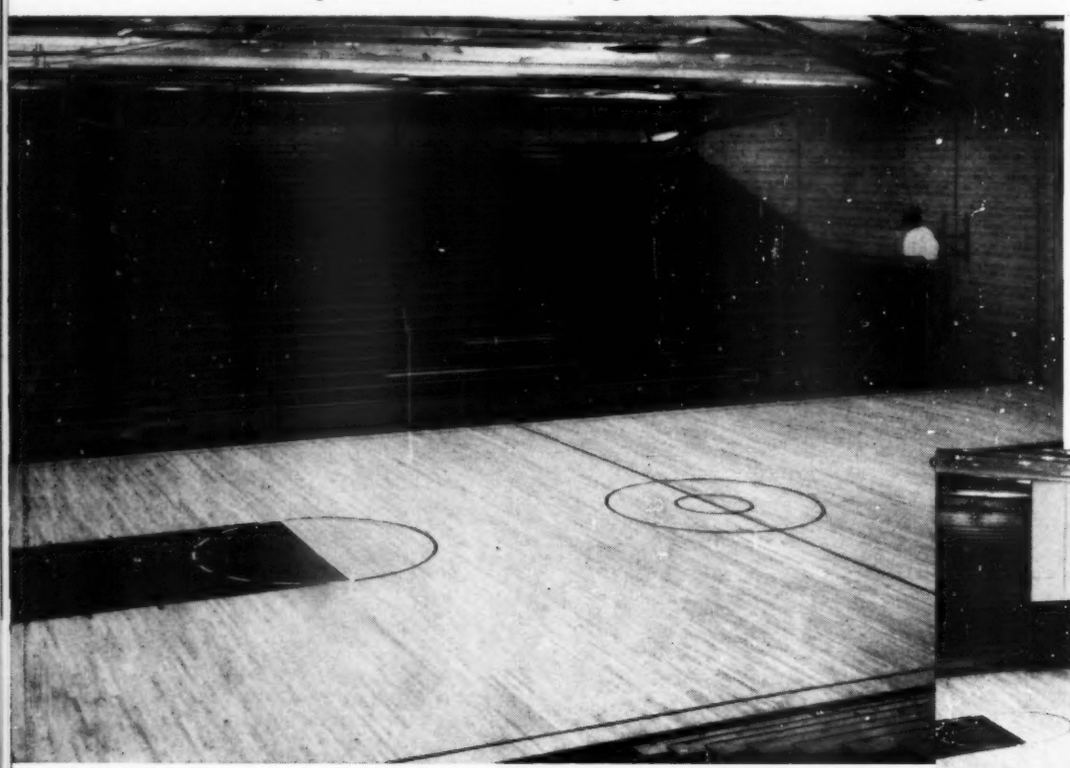
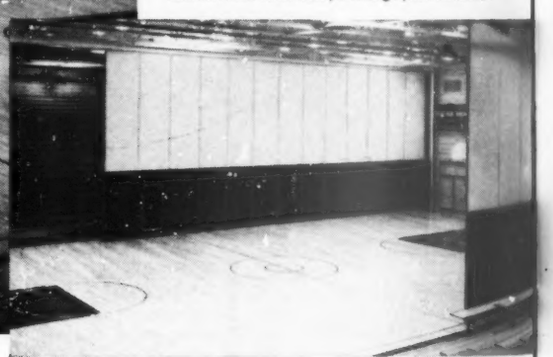
How Can You Seat 3600 Spectators in "Living Room" Comfort?

Ask Your Architect—He'll tell you how *exclusive* Brunswick adult "chair-height" seating, *plus* angled "foot-freedom" design provides more comfort . . . for more spectators. Brunswick gym seating is all-steel, structurally . . . with wood used in seats, risers and footboards only. All three woods (edge laminated flush, rail, or edge laminated safety groove, optional) are exclusively processed to strengthen lumber and eliminate warpage. Most important, your architect will tell you, all-tubular steel supports and "X" bracing prevent any side sway—regardless of the load! And (note this) Brunswick's on-the-spot service crews insure a perfect installation . . . continuing service.





Bloom Township High School, Chicago Heights, Illinois—first 26-row folding gym seating installation in the nation. Note the use of two 97 foot Brunswick Folding Partitions—make 4 gymnasiums in one area. *Dr. Harold H. Metcalf, Superintendent and Principal, Bloom Township High School. Schmidt, Garden and Erickson, Chicago, Architects.*



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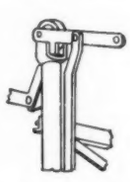

ROWS LOCK AUTOMATICALLY—each row locks permanently in place when pulled out—not dependent upon spectator loading to hold lock.

SAFETY DESIGN—foot contacts sloping front first (when stored) gives person time to protect head and body or regain balance upon contact.

3 Rows or 30—Brunswick Folding Gym Seats Give You More Comfort, More Space, More Income!

television but we are disturbed at being placed in the "anti" class.

In the field of closed circuit television, we believe that television is and will be an important factor. The exact attitude of the NEA [is] that the teaching profession doesn't believe that television can be a substitute for the teacher but it encourages extensive experimentation and research . . .

We believe that educational television is here. We believe it is going to make a contribution. We are not antagonistic to the use of television in education. We are for it to the extent that it can contribute to a better environment for learning.

LYLE W. ASHBY
ASSISTANT EXECUTIVE SECRETARY
NATIONAL EDUCATION ASSOCIATION
WASHINGTON 6, D. C.

Insurance reprints

SIR: We would like to request your permission to reproduce the series of five articles on insurance for members of our board of education and insurance advisory committee.

We also would like to commend you upon the excellence of this particular series of articles, as well as the many others which we have seen to date in SCHOOL MANAGEMENT.

ROBERT J. KINNEY, CLERK
BOARD OF EDUCATION
CLARENCE, N. Y.

■ *Any board wishing to reprint any or all of the insurance articles is welcome to do so. We ask only that a letter informing us of your intentions be addressed to the magazine and that the line "reprinted from* SCHOOL MANAGEMENT *magazine" be carried somewhere on the reprint.* ED.

Change of address

SIR: May we request a change of address for two copies of your SCHOOL MANAGEMENT which you have been kind enough to send to us. The address noted on the old labels, which we are enclosing, is that of our senior high school, and we should like to request that the magazines be forwarded directly to our administration building.

We wish to take this opportunity to commend you for this excellent publication. We believe it to be one of the best of its kind.

G. E. BROWNE
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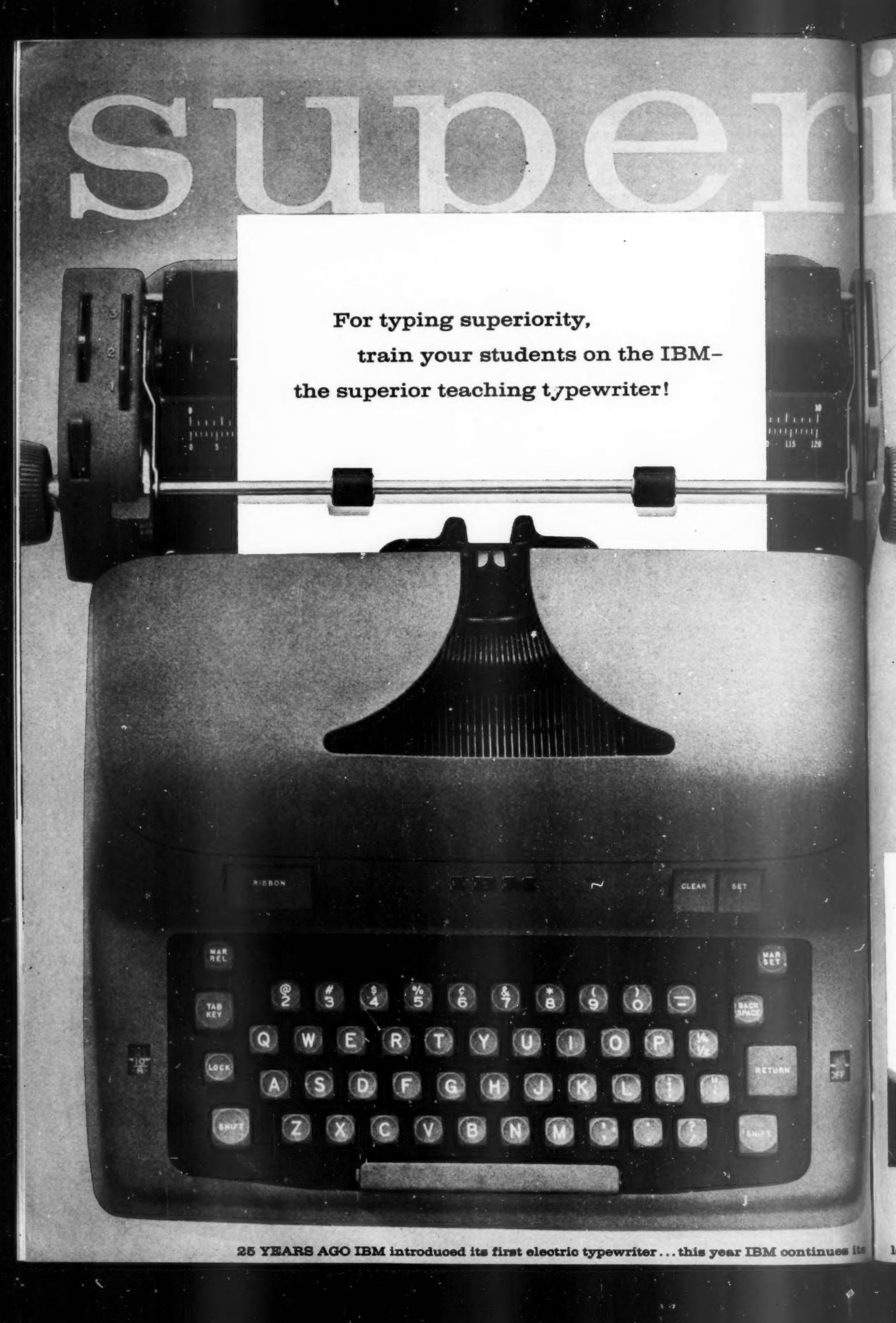

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is the *best* platform from which to discuss the problems of your schools

WHERE TO GET HELP

A guide to useful information

This School Management service screens important new factual material available to school officials and tells where it can be obtained. Ed.

ADMINISTRATION

School District Planning. If your district is planning to reorganize, you will find this booklet, prepared by the Office of Education, most helpful. This "How to" booklet offers many suggestions in planning and organizing for an adequate school district. What are the legal requirements? What services does the state offer? Where to start? Information is presented on how to set up citizen study committees and, perhaps most important, the best methods for presenting the final proposals to the local voters are fully explained. This booklet will be invaluable to you and your district.

LOCAL PLANNING FOR BETTER SCHOOL DISTRICTS. *Pamphlets No. 121, 1957, US Department of Health, Education and Welfare. Order from the Sup't. of Documents, Government Printing Office, Washington 25, D.C. 15¢.*

FILMS

Film Strips. More than 700 filmstrips in 15 curriculum areas are listed in the catalog issued by The Jim Handy Organization. These filmstrips cover all age levels from primary through high school. Many titles are available in the field of science, space travel, physics, meteorology, mathematics and world geography.

Also listed are filmstrips in guidance and counseling. Other subject areas include music appreciation, journalism, literature and social studies.

FILMSTRIP CATALOG. *School Service Dept., The Jim Handy Organization, 2821 East Grand Boulevard, Detroit 11, Mich. Free.*

Educational films. A new catalog describing 800 educational 16-mm sound motion pictures has been issued by Coronet Films. The list is carefully organized by grade level and subject. Most of the films are available in either full color or black and white. Details of purchase or rental are included in the catalog.

CORONET 1958-59 FILMS CATALOG. *Coronet Films, Coronet Building, Chicago 1, Ill. Free.*

Business Films. A new catalog of free films for the use of schools has been published by United World Films. These color films are sponsored by American railroads, airlines, manufacturers and trade associations as good-will gestures—many soundfilms are also available.

FILM CATALOG. *United World Films, Inc. (Free Film Dept.) 542 South Dearborn Street, Chicago 5, Ill. Free.*

COMMUNITY RELATIONS

Joint action against delinquency. This 96-page booklet offers detailed suggestions for joint school-community action in fighting juvenile delinquency. PTA's are urged to make this a priority project and adopt a program to meet local needs. A step-by-step plan for combatting delinquency is presented. The "case history" approach is used in describing how communities of varying size have handled the problem.

WHAT PTA MEMBERS SHOULD KNOW ABOUT JUVENILE DELINQUENCY. *National Congress of Parents and Teachers, 700 North Rush Street, Chicago 11, Ill. 50¢*

GUIDANCE PROGRAMS

Of what value? The value of an effective guidance program is measured and its techniques examined in a new booklet which tries to get at the basis of our failure to encourage maximum development of brain power. Counseled students, it points out, plan to go on to college to a far greater degree than do those who have not been counseled. The advantages both to the individual and to the nation are noted as an argument against the position that guidance programs are costly to the community.

GUIDANCE IN THE PUBLIC SCHOOLS, *by Dr. Edward Landy and John Palmer. Massachusetts Council for Public Schools, 16 Arlington St., Boston 16, Mass. 36¢.*

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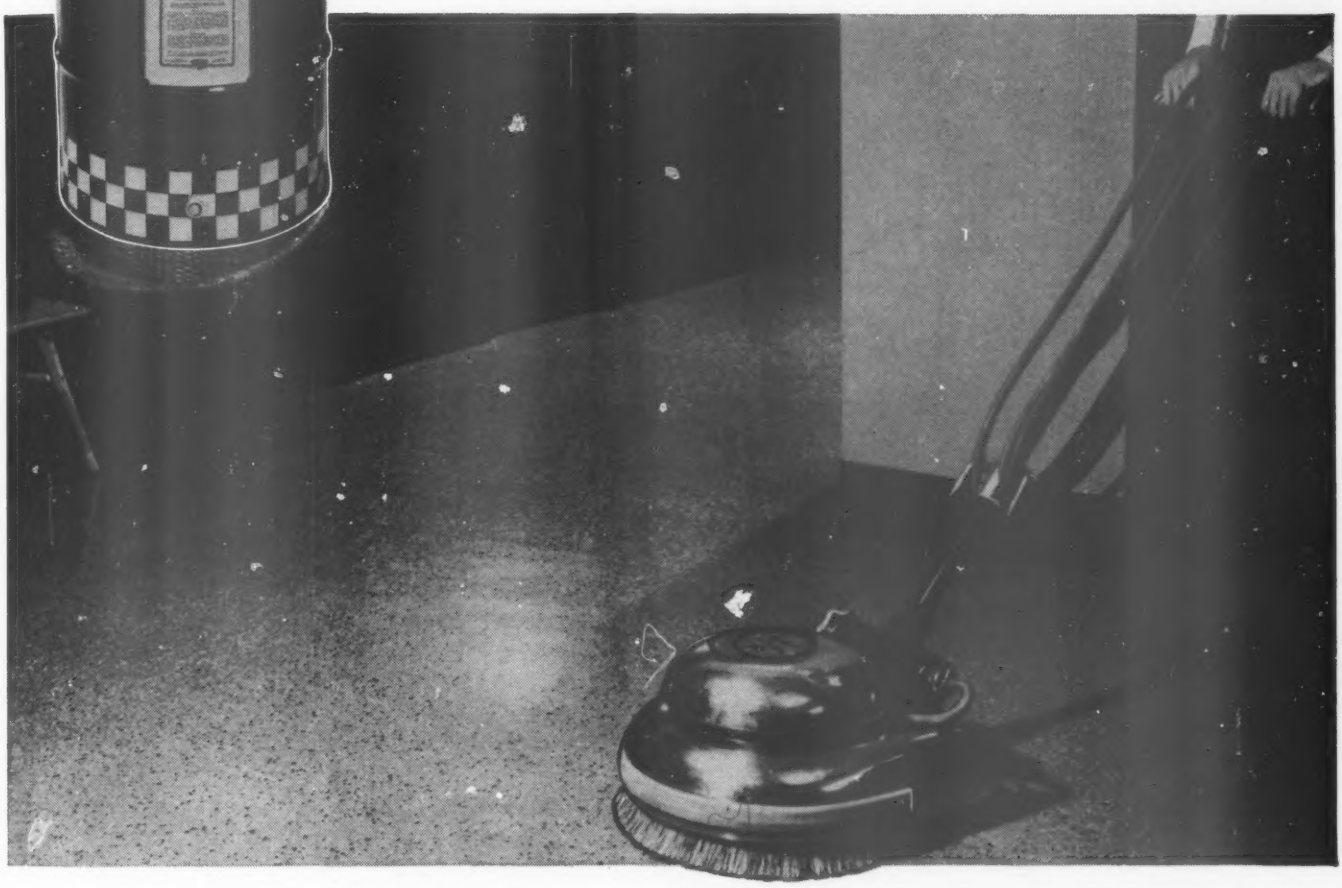

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The Hillyard "Maintaineer®" shows you how to take advantage of modern labor-saving treatment techniques and short cuts. He's your own trained floor care specialist. *"On Your Staff, Not Your Payroll"*

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Dependable Low-Cost Service

Triple-Tough 3-T Cord ROAD LUG

saves time—saves trouble—saves the budget!

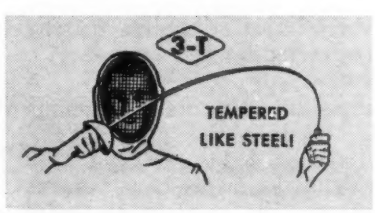
You never know a tire's true cost—*until you've had its last mile!*

And with Road Lug that "last mile" is far, far away—with savings aplenty in store.

Its wide, heavy tread—up to 50% deeper than conventional tires—smoothly rolls up thousands of extra highway miles. Its husky, long-and-short lugs shrug off tough going, deliver sure-biting traction, wherever a school bus route may lead.

And its rugged TRIPLE-TOUGH 3-T CORD body protects against bruise-breaks, blowouts and breakdowns—keeps in shape for recap after recap.

Give *your* tire budget a new lease on long life. Buy and specify Road Lug by Goodyear. Available in both tubeless and tube-type construction.



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Watch "Goodyear Theater" on TV—every other Monday, 9:30 P. M., E. D. T.

(For more information, see last page)

SM NEWS OF THE SCHOOLS

A digest of current happenings in public education

School heads benefit from district mergers

What happens to district superintendents when two or more districts are merged? They may lose their jobs, but they usually end up with better ones at higher pay. This is the conclusion drawn by Robert Glass for the Iowa State Department of Public Instruction.

Glass reported this fact after making a survey of 100 superintendents in recently merged districts. The survey was part of Glass' work toward a master's degree.

He sent questionnaires to the 100 superintendents and 94 of them responded. Of these, 60 had remained in the new district, 30 of them in the post of superintendent, 13 as assistant superintendents, 15 as principals, and only one as a classroom teacher. The other 34 moved on to other districts, 23 of them as superintendents, three as principals, two as teachers, and six went into other types of educational work. The survey showed that the average wage of the 94 educators questioned increased by $564 after district merger, from $5,614 to $6,230. Even those who ended up as classroom teachers, Glass reported, received an increase in pay.

High schools offer new automation course

Fifty-six hand-picked Pittsburgh high school students are enrolled this year in the first course of its kind in the country—a course in automation. It is supported jointly by the board of education and a handful of Pittsburgh industrial and engineering firms which provides the equipment.

The course is held at Allegheny High School although the students, who attend classes daily, come from all of Pittsburgh's 12 high schools. They travel at their own expense after attending regular classes in their own high school.

To be selected for the course, a student must be outstanding in science or math and have a majority of A's on his report card, for the problems he will tackle in automation are so advanced he probably won't even encounter them in college.

Equipment for the course—computers and other intricate machinery is loaned for periods of as long as a month by such firms as Westinghouse, Gulf Oil Co., US Steel, Jones and Laughlin Steel and Alcoa Aluminum. It costs the companies as much as $16,000 to make the installations.

The companies send along their technicians to explain the purpose of the equipment and how it operates. After that, the students are on their own. They invent their own problems, and work out testing methods. They even dismantle the machines and then put them back together.

Although the word automation is so new most dictionaries don't define it, the course covers with surprising thoroughness the fields of chemistry, electronics, controls, and computers, all as applied to industry.

Course instructor is Ned Replogle, a veteran Pittsburgh high school science teacher who has an extensive extra-curricular background in electronics.

Too good to miss . . .

Hartford, Conn. . . . Governor Abraham Ribicoff has ordered all school bus drivers in the state to undergo physical examinations by an appointed doctor before their licenses are renewed. Local boards will appoint doctors to make the examinations.

The governor said he took the step to protect the lives of the 128,500 school children who ride buses every day. He was moved to the action because of the recent series of school bus accidents.

Hamtramck, Mich. . . . A celebration here last month marked the retirement of the last of this city's school bonds. The district is now completely out of debt. The bonds, totalling $700,000 were issued in 1930 for the construction of a high school.

Levittown, N. Y. . . . A PTA production of the award-winning play "Come Back Little Sheba" was suddenly called off here when a school principal convinced the board of education that the play was "objectionable in language and theme." Mrs. Helen Murphy, principal of the Wisdom Road School here cited the lines "How about sex?" and "Have you read the Kinsey Report?" as examples of objectionable material.

The play won top awards both on Broadway and in the movie production.

Montpelier, Vt. . . . Deputy State Fire Marshall Chester M. Kirby has warned that many of Vermont's older schools are "powder kegs." He charged that inadequate maintenance has caused deterioration in the buildings. Particularly bad, Kirby said, are some two- and three-story buildings located in rural areas. Many of these are wood frame schools and lack fire escapes, fire extinguishers and other safety features.

San Jose, Calif. . . . Prospective teachers and other education students at San Jose State College will study public school classes in session via television. Twenty-seven college classrooms have been equipped to pick up closed-circuit telecasts from classrooms in the Horace Mann school a block from the campus.

College-bound students "short change" themselves

Eight out of every 10 academic graduates from New York's high schools seek full or part-time jobs sometime during the first year after graduation according to a recent study of the Office Executives As-

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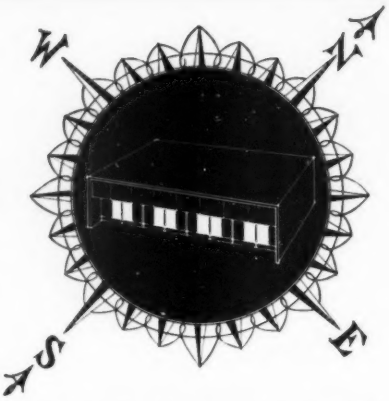

Proper orientation is important to any school building, and particularly so when warm weather comfort—and eventual air-conditioning—are considered. At the John Jay High School, the middle portion of south-facing wall is 50% glass, 50% light-colored panels to reduce glare and solar gain. Continuous glass in upper portion admits a maximum of useful light to the ceiling. As warm weather approaches, the shadow of the darkening-glass screen covers more and more of the window until—in May and June—it is covered.

Stanley Sharp designs school window wall completely compatible with air conditioning

In the John Jay High School, Westchester County, New York, architect Stanley Sharp of Ketchum, Gina' and Sharp, recognized window-wall as a key element in school design. Their approach was based on a conviction that control of solar heat is at least as important as admission of daylight to schoolrooms—and especially so in view of the likelihood of future conversion to air conditioning.

In the cafeteria, shown here, they developed a unique application of low-transmission glass, suspended vertically from the roof overhang—and a pattern of glazed and opaque panels in the window itself. Direct solar gain is greatly reduced in winter, completely eliminated in hot weather. Light distribution and visual comfort are actually improved.

If, at any time, warm-weather cooling is added to the heating and ventilating functions of the mechanical equipment, the building will be far easier to cool than if it had continuous, unprotected windows. Meanwhile, the design is paying off in greater thermal and visual comfort from the start.

Number two of a series . . . **The herman nelson file of a**

hernel-cool II UNIT VENTILATOR with optional air conditioning

Will the school you are planning *ever* need air conditioning? The answer is definitely—yes. That's why today—less than a year after its introduction—the HerNel-Cool II unit ventilator with optional air conditioning has been selected for use in more than 100 schools, which are either air conditioned now or have planned for it.

HerNel-Cool II is the first unit ventilator to offer optional air conditioning, as well as heating, ventilating and natural cooling (with outside air). Units can be installed so the school enjoys the usual benefits of Herman Nelson unit ventilation, including the famous DRAFT|STOP system—*the only type of draft control that is compatible with air conditioning.* Then at any time – immediately, or whenever the school budget will allow it—the mere addition of a chiller in the boiler room is all that is needed for complete hot weather air conditioning.

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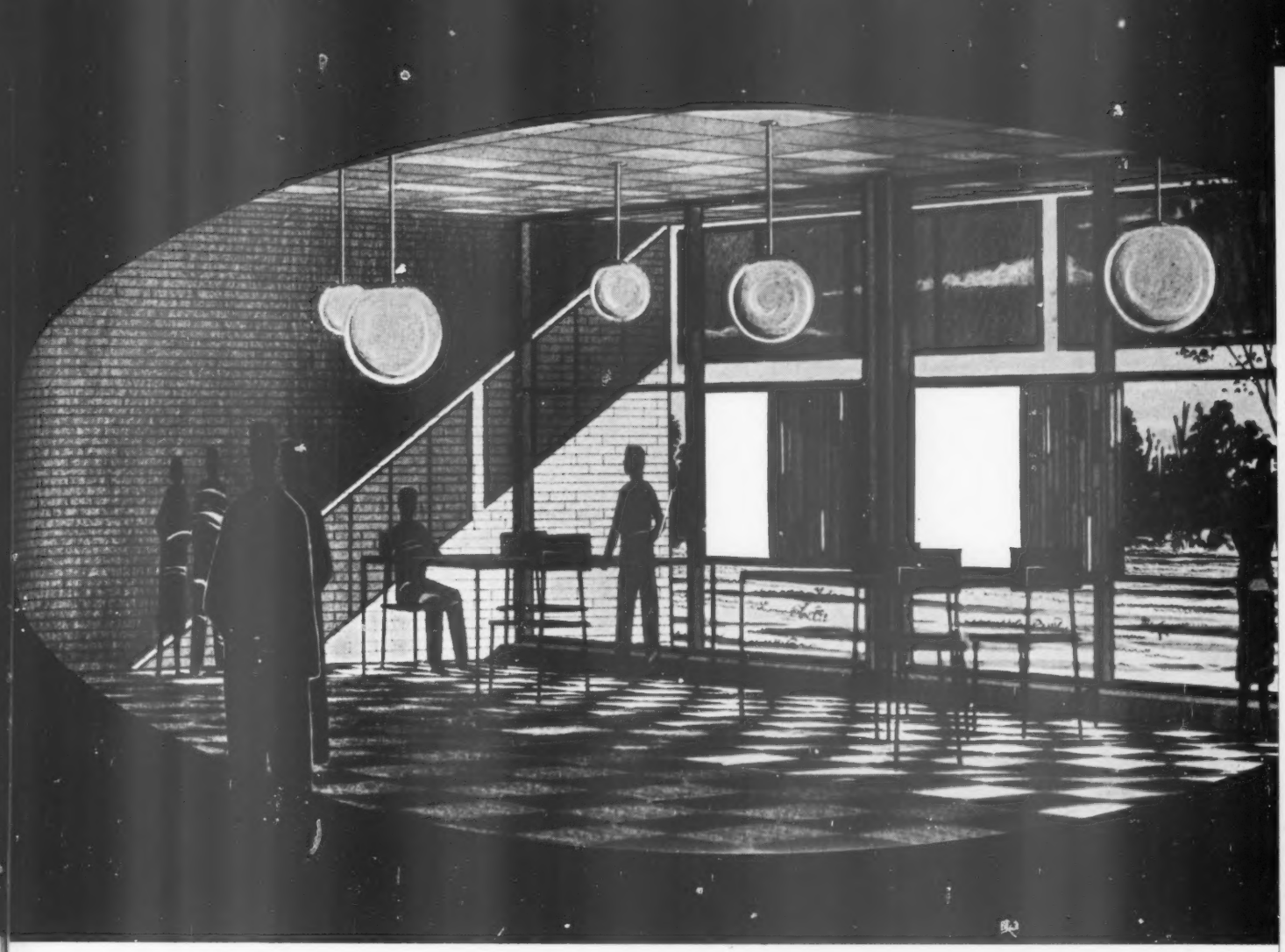
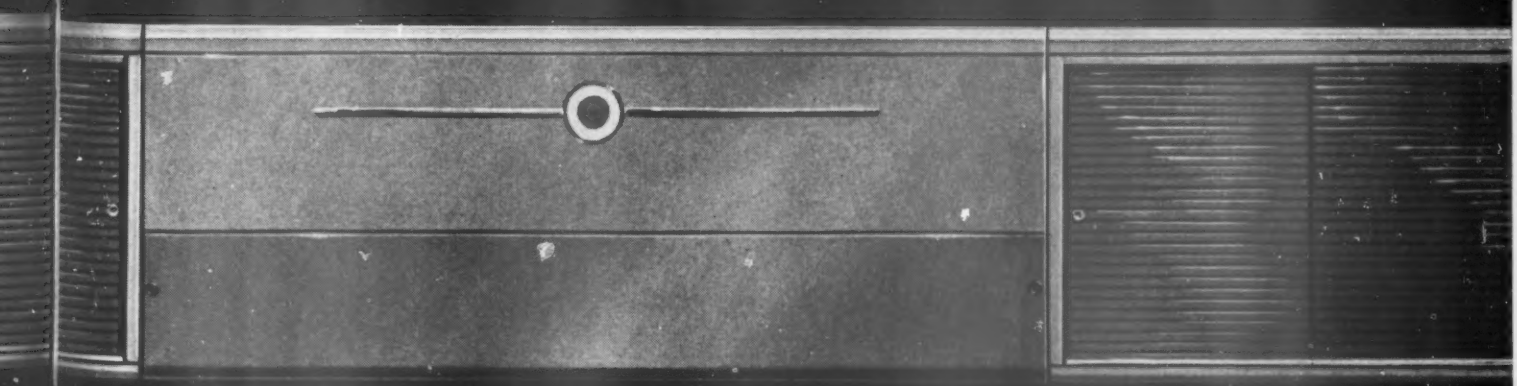
System of Classroom Cooling, Heating and Ventilating



of air conditioned school design



HerNel-Cool II units are as attractive as they are efficient — they harmonize with any classroom color scheme. Choice of seven standard colors. Five durable, decorative laminated plastic top patterns. Matching utility cabinets and other accessories.

sociation. And, while more than 74% of them take jobs in business offices, a mere 46% of the academic students take business or commercial electives while in high school.

The year-long study, a project of OEA with the cooperation and assistance of the business education department of New York's board of education, covers 1,490 academic, commercial, general, vocational and technical students who graduated from NYC schools in 1956.

The survey shows that most of the office jobs go to the students who have taken one or more commercial subjects in high school.

Michigan high school sets rules on dress

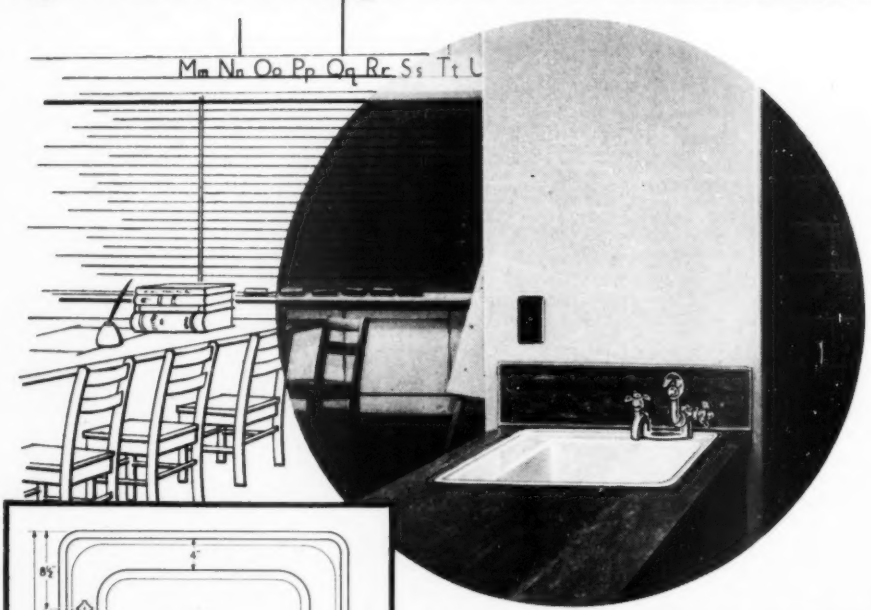
Lincoln High School, Ferndale, Mich., has issued an official guidebook for appropriate high school dress, the result of a half-year study of the matter by both the school administration and the students. When the term opened last fall, Principal John Houghton formally asked the student council to consider the question of what constituted proper attire for school.

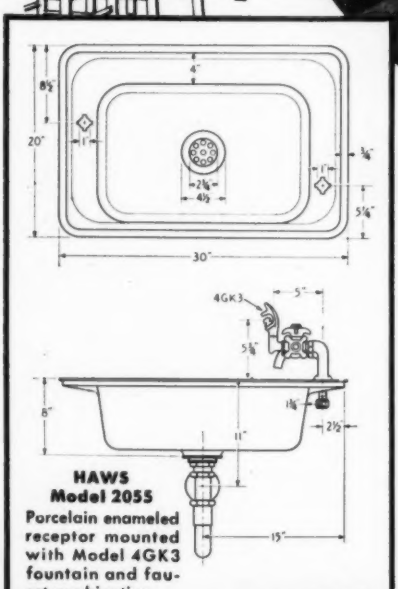
The matter was referred to individual home rooms for discussion. Each room then elected a representative to relay its conclusions to a school-wide conference. Although the dress code drew some resentment, Houghton reported, it has been generally accepted.

The code forbids girls to wear slacks or shorts, v-neck sweaters without a blouse beneath, scarves on the head, hair curlers, and conspicuous clothes, jewelry or cosmetics.

Boys are banned from wearing tee shirts, except as an undergarment, and engineer boots or levis, except as an economic necessity. Enforcing the code is still an administrative problem, explains Houghton, calling for some discretion in individual cases. But for the most part, Lincoln High School is greatly improved from a sartorial standpoint.

right where it belongs... IN THE CLASSROOM!





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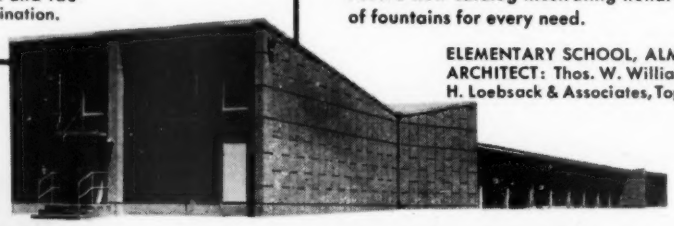
MODERN school design recognizes the necessity for versatile drinking facilities within the classroom . . . HAWS famous deck-type receptors may be equipped with a wide choice of HAWS faucets and fountains, and are attractively styled in porcelain enamel or stainless steel for lifetime wear and sanitation. VANDAL-PROOF fixtures prevent juvenile damage, assure uninterrupted service.

GET DETAILED SPECS! Write today for HAWS new catalog illustrating hundreds of fountains for every need.



ELEMENTARY SCHOOL, ALMA, KANSAS
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HAWS DRINKING FAUCET COMPANY
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(For more information, see last page)

School seeks teachers via Madison Avenue

Modern advertising techniques are being used by the Floral Park, N. Y., schools to recruit 20 new teachers needed for the next school year. The district has just published, for distribution to teachers' colleges and teachers seeking work, a booklet in color describing as vividly and attractively as possible the pleasant life on Long Island. Beaches are emphasized, and so is Floral Park's proximity to the cultural offerings of New York City. Photos in the brochure show happy teachers playing golf, sailing on Long Island Sound, and reading. Also mentioned is the fact that teacher salaries range from $4,200 for beginners to $9,000 for veteran instructors holding doctorates.

Text of the booklet was written by teachers and students of the school district.

Mobile driver trainer first of its kind

Driver training classes at Jefferson County high schools in Colorado have been equipped with a novel class-

room on wheels. A bus, containing six mock cars, now travels between the district's eight high schools to facilitate driver training and make it available to more students.

Students drive the mock cars in response to a motion picture projected on a screen in front of them. The movie shows the road from the driver's point of view. Students respond to each traffic situation as it flashes in front of them and their reactions are recorded electronically on tape that is later checked by the instructor to point out mistakes.

All types of driving situations can be experienced safely by students before they begin actual on-the-road training. Each student receives 12 hours of training in the device which has been named the Drivotrainer. This has reduced the actual road training time from eight to five hours, thus cutting the costs of the program and making it available to more students.

The Drivotrainer cost the school district a total of $10,500, which includes the projector, 20 films, and the electronic device that records reactions.

Long Island pupils work way to Washington

A group of fifth grade students from the Beverly Hill School in South Huntington, N. Y., worked five months to make enough money to take themselves and their teacher on a two-day tour of the nation's capital.

The 22 youngsters, all 10 or 11 years old, saw all the historic sights and stayed at a hotel near the Capitol. They visited their own congressman, Rep. Stuyvesant Wainwright of Wainscott, N. Y.

The class teacher, Jim Nugent, said his pupils began planning for the trip after seeing a film about Washington five months earlier. To make the $800 necessary for the trip, the class sold cakes and cookies baked by their mothers, collected soda pop bottles from neighborhood homes, gave a dance for fellow students and sponsored a faculty basketball game. Mothers groups helped raise funds with card parties.

The students were accompanied on the trip by five mothers and by Nugent who said the project was so successful from an educational standpoint that he hoped to take his class on other trips to see "democracy in action."

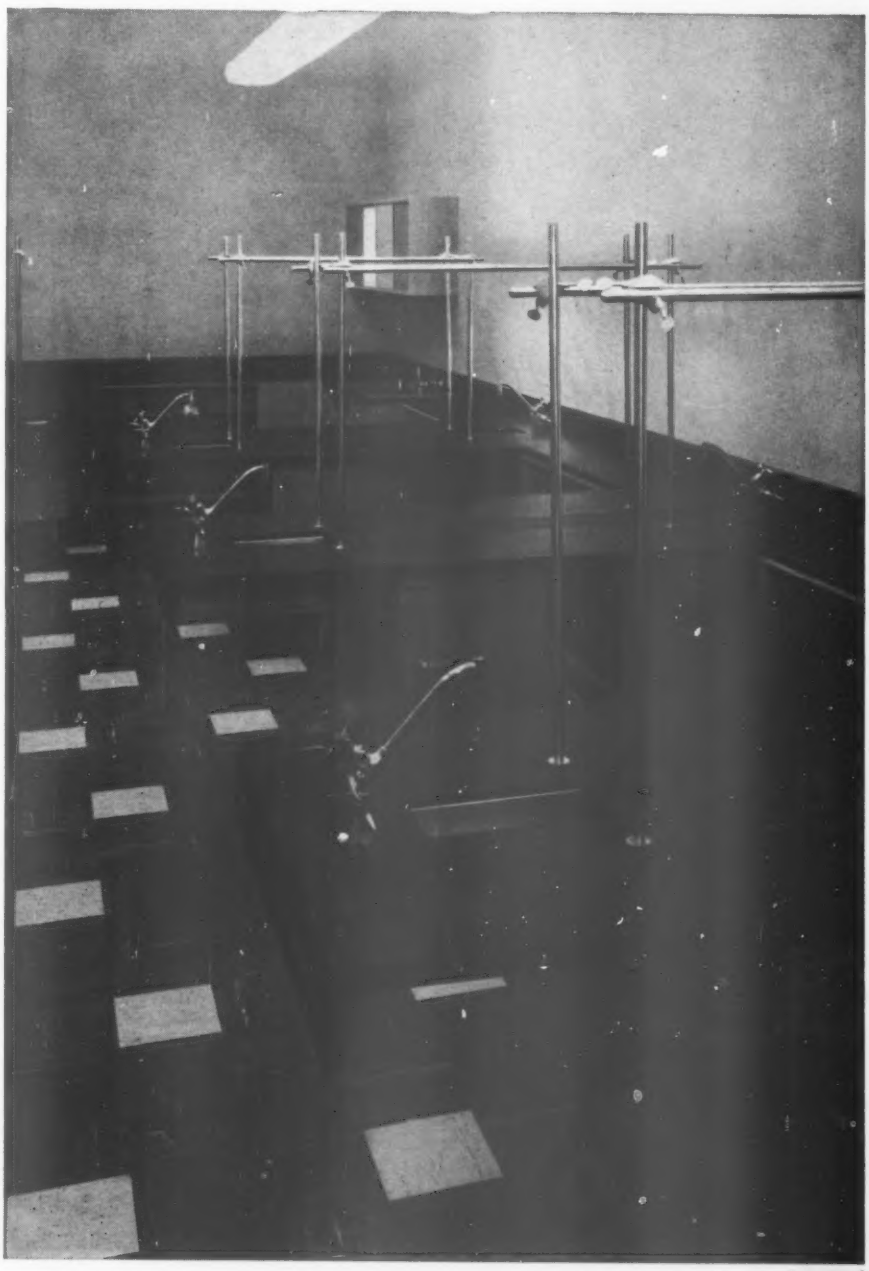
Added Nugent: "These youngsters probably learn more from such a trip than most high school students and adults."

School year may be extended one month

The Hicksville, N. Y. board of education is considering a proposal to extend the school year an extra month next year—on a voluntary basis, as far as students are concerned. The proposal, made by Board President Emil J. Szendy, would enable students to accelerate their learning and advance more quickly. It would also increase teachers income about 10%.

The board is also studying another proposal by Szendy for a general increase in teacher pay.

Many Hicksville teachers say they would rather work at their profession for an extra month than seek summertime employment to raise their income. **End**



school science room with UNAFLEX

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(For more information, see last page)

SPACIOUS TABLET ARM CHAIR... Large tablet arm allows plenty of "elbow room"—available left or right hand. Work surface adjustable 1″ up and 1″ forward. One-piece, heavy gauge, tubular attachment arm fastens rigidly to underseat fixture. The first tablet arm chair with arm adjustment *underneath* the seat—provides exceptional stability. Shown with book rack (accessible from either side—available as an accessory)

EFFICIENT CHAIR DESK... Ideally proportioned, generous-sized work surface, available right or left hand. Adjustable 1″ up, 1″ forward. Sturdy one-piece attachment arm. In this comfortable chair desk, the large work surface provides an efficiently placed, natural writing area, while allowing plenty of body room to permit easy access. All work surfaces are heavy plywood with melamine plastic top and bottom.

Now... adapt any one of these work surfaces in seconds

to the PEABODY chair unit

ROOMY BOOK BOX CHAIR UNIT... Free standing design; all corners open—available left and right. Side fixtures permit adjustment of work surface to three, level heights (no slant). Heavy gauge, tubular attachment arm fastens under seat. Interior of book box is free of all obstructions. Top has adjustable friction hinges to prevent slamming.

STURDY STUDY TOP CHAIR UNIT... A specialized high school, college and university unit. The study top is available in any of three, large, work surface sizes: 20″ x 24″, 22″ x 26″, and 22″ x 28″. Side fixtures permit adjustment of work surfaces to three, level heights (no slant). All study top and book box units group sides and front for efficient classroom arrangements.

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- *Entirely new adjustable desks with no obstructions inside book box.*
- *Work surfaces throughout entire line are* adjustable.

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accommodates four interchangeable work surfaces...or can be used as a chair separately

Chair has heavy gauge steel legs, understructure, attachment fixture, and back support welded into a one piece unit. Generous sized, self-adjusting floor glides.

Large back and seat are contoured for comfort in *all positions*. Clear grain maple surfaces.

This rugged, non-stacking chair unit is available in four sizes—under-seat bookrack is an optional accessory. Use chair separately, or with tablet arm, chair desk, study top, or book box assembly illustrated at left.

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You'll see the complete new Student Line in full-color pictures...all the advanced features...details of construction, materials and finishes. It's a revelation! Write for your catalog today.

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(For more information, see last page)

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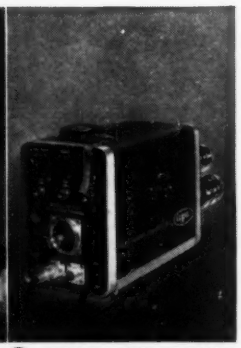
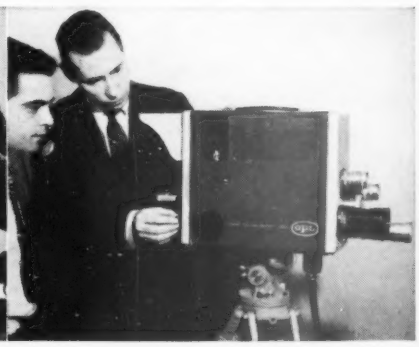
See a demonstration in your own school!

1. YOU'LL SEE the best in closed circuit TV equipment, made by GPL, one of the leading manufacturers of military, broadcast, industrial and instructional TV. You'll see the GPL View-Finder Camera — of highest quality; meets professional broadcasting standards. Like all General Precision Laboratory TV equipment, it is simple to operate, dependable, efficient, versatile, and economical →



2. YOU'LL SEE a full line of cameras and accessories for all closed circuit uses—the most complete line available anywhere. Fixed classroom camera shown (at Port Chester High) operates unattended, clear pictures give every student a "front-row" seat at science, shop or other demonstrations.

3. SINGLE UNIT CAMERA by GPL, a system with built-in controls, complete in itself. Add-to feature permits the addition of accessories as needed.



4. BRIGHT, WALL-SIZE PICTURES are available by using the GPL Projection TV System. As few as 100 and up to 1,000 students, teachers, and parents can easily watch closed circuit programs, or educational broadcasts "off the air," in school auditoriums, or in large, multi-purpose rooms.

5. YOU'LL GET the most comprehensive service for all your TV needs from Educational Television Products, a division of National Theatre Supply—a GPL sister-company. NTS has branches coast to coast; a collect call will promptly bring a technically trained NTS man anywhere to help you plan a tailor-made system

6. NTS assumes complete responsibility for delivery and installation, and the man from NTS instructs students and teachers in the proper operation of the equipment. Round-the-clock service insures that your GPL/NTS Instructional TV equipment will never miss a class!

INVESTIGATE! Don't settle for any closed circuit television until you've seen a free demonstration of GPL/NTS TV in your own school! Write or phone, collect, to Mr. H. Barnett, Director, Educational Television Products Division, National Theatre Supply Company, 92 Gold Street, New York 38, N. Y.; BEekman 3-4170.

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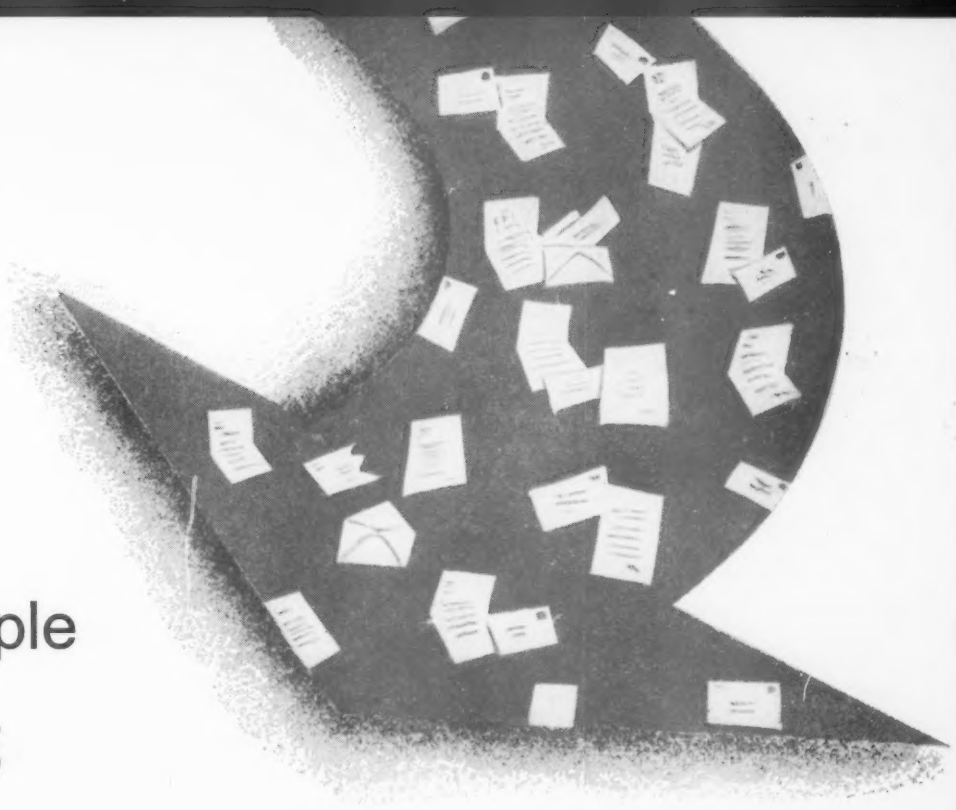
(For more information, see last page)



What people are saying about the Winnetka Report

Almost no one disagrees with the spirit of the plan--but there is sharp cleavage on methods, merit rating and the willingness and ability of taxpayers to bear the freight.

■ ■ ■ Last month School Management carried a special condensation of the Winnetka Report on teachers' salaries. Without endorsing it, we felt that it presented clear analytical thinking on the teacher salary problem and would become the basis for discussions now and for many years to come. In the opinion of the editors it was important to get this report into the hands of every school administrator as soon as possible.

Apparently our judgment was sustained. Less than four days after the report was in the hands of our readers we had received more than 200 letters of comment. Excerpts are presented here.

Space and time make it impossible to carry all the letters in this issue. We have endeavored to select comments expressing every point of view. We welcome additional reader opinions and will carry as many as possible in future issues.

A limited number of the condensation of the Winnetka Report are available. If you would find them useful in your district they can be ordered through this magazine in groups of 25 or more only, at five cents apiece to cover handling. Ed.

"Does not force teachers into administration"

RADCLIFFE MORRILL, *Superintendent*
Pelham, N. Y.

"Even though, at the moment, I am traveling through Michigan and Ohio in quest of quality experienced teachers, I'd like to give you my reactions to the Winnetka report . . .

"The expanded concept of 'initiative units', and the manner in which they are weighted, is noteworthy. The provision for a long period of salary advancement with opportunity to reach salaries in five figures is one step toward providing a decent professional wage. This offers continuing incentive and does not force competent and dedicated teachers into administration in order to make a living.

"I think the plan falls short in one important area: namely, its failure to move young teachers from an inadequate salary level to a reasonable subsistence level at a more rapid pace.

continued on next page

Despite the dependency clause, I fail to see how a young married man, with a child or two, can afford the minimum essentials of living in an expensive suburban area on much less than $6,000-$6,500."

"On the must list for every local board of education"

W. A. SHANNON, *Executive Director*
National School Boards Association, Chicago, Ill.

"The condensation of this report, as printed in the April issue of SCHOOL MANAGEMENT, should be placed on the *must* list for reading and study by every local board of education in the United States honestly interested in improving the schools over which they have jurisdiction.

"Some of the recommendations made in this report will not be applicable to all school systems, but the approach made by the Winnetka committee of 13 laymen is logical and sound, and may be used by boards of education in more than 40,000 other school districts in the United States."

"Complete, realistic and logical"

THOMAS D. BAILEY, *Superintendent*
Florida Department of Education, Tallahassee, Fla.

"This is one of the most complete, realistic and logical reports it has been my privilege to examine. The recommendations are administratively workable. This committee meets head-on the two universal problems encountered whenever a salary schedule is designed; beginning salaries adequate to attract capable young people and an opportunity for achieving financial security without leaving the classroom. This second consideration is of grave importance. We have seen many excellent classroom teachers leave the classroom to become mediocre administrators or supervisors simply because the opportunity for financial advancement in the classroom was limited by short-term maximum salaries . . ."

"Liked statement about merit rating"

GLENN G. VANIMAN, *Superintendent*
Azusa, Calif.

"I liked their statement about merit rating—one of the finest lay statements I have seen. I question their ability to set a schedule for 10 years in advance. We have had to upgrade ours practically every year since 1948."

"Were classroom teachers consulted?"

JAMES L. MERRIHEW, *Superintendent*
Corona Unified School District, Corona, Calif.

"I am impressed by the intent of the Winnetka report . . . Their judgment that the root of our troubles rests with the sense of values of our citizens is all-important. Unless those values can be changed we cannot expect any great changes for the better in public education. Blaming John Dewey for all of our ills is popular but not very constructive.

"I am in agreement with the great majority of their proposals but can't help but wonder how much the classroom teachers were consulted during this study. My personal experiences working with teacher committees on salary schedule proposals has led me to believe that:

1. Young teachers (like most young people) are primarily interested in this year's salary and progressively less interested in each year thereafter.

2. Many teachers do not feel that an advanced degree per se is of as much value to classroom performance (particularly at the elementary level) as are carefully selected courses in areas where they wish to gain background and knowledge."

". . . Very much needed at this time"

B. E. HAGUEWOOD, *Trustee*
Sundeen, Tex.

"The teachers in the state of Texas are not the lowest paid in the nation, yet this is not something to be proud of. The past legislature instigated the organization of a committee of 24 to go into the 254 counties in the state and make a grass-roots study of the school system. The sub-committees were made up from the laymen of these counties, thereby allowing the people to get a first hand look at their problems. They have proposed a minimum of $4,200 for the first degree up to a maximum of $6,540 for 12 years of teaching at this level.

"I realize that these recommendations are not near being accepted. This is the reason I believe that the Winnetka report is very much needed at this time, not only for our state but for the nation."

"I disagree with the basic philosophy"

CHARLES H. BENTON, JR., *Member*
Board of Education, Penfield, N. Y.

"My overall impression of the report as a piece of concerted community effort is excellent. Some portions I would like to see adopted in my own school district. However, I do disagree with the basic philosophy upon which some of the recommendations are based . . .

"Ideally, I believe the public interests and the interests of the teachers in achieving a truly professional status would best be served by a good merit rating plan. However, I will readily agree that such an ideal rating plan is not yet known to us. This does not mean we should abandon seeking one.

"State education laws vary considerably across the nation and, in our own case, make a salary schedule a very inflexible and binding document as far as teachers on tenure are concerned. It is our philosophy, then, to start teachers at a good ($4,100) but not highly competitive salary, raise the teachers' salaries on a published schedule to a living wage rapidly ($6,250 after 10 years) and then advance the teachers on a merit rating plan up to a maximum of $8,500. We feel this protects the public from the occasional teacher who 'retires on the job' and provides a good income for the deserving teachers. Especially good teachers sometimes are given extra merit increases

Continued on page 71

SINGLE STORY VS. MULTI STORY

WHICH IS CHEAPER?

Almost every time a new school is planned, somebody asks this question. There's no pat answer to fit every situation, but there are basic criteria that will help you get the right answer for your community. Here's an objective study of the factors involved in whether to build "up" or "out."

■ ■ ■ When the editors of this magazine began to research the following article, we had quite a different story in mind. We wanted to build a list of questions "most frequently asked" of schoolhouse architects . . . by educators, school boards and laymen. We intended to present these questions followed by the best answers available.

After about a dozen interviews with architects, it became apparent that *one* question took precedence over all others: "Which is cheaper—one-story or two-story construction?"

At this point we decided to "come in close" on this single question. The following material was prepared with the close cooperation of Sherwood, Mills and Smith, Architects, in Stamford, Conn., who have had broad experience in the schoolhouse field.

In their innocence, most laymen and many educators try to draw a comparison between home construction and schoolhouse design. They believe—and, in general, they're right—that a two-story house can be built for a lower square foot cost than a "ranch" structure.

But this generalization cannot be extended to school building, according to Lester Smith of the above mentioned architectural firm. Says Smith, "Though cost is the final and not the least important factor in schoolhouse design, it is the aggregate of many other considerations that have to be studied before a decision as to a single-story versus a multi-story school can be made. Each school construction project is unique, and the physical and educational factors which determine the number of stories differ from case to case. Only careful and intelligent study of those factors can help to guide a community to the right decision."

On the following pages we have endeavored to present an objective picture of the facts you and your architect should consider before you plan your next school.

please turn the page

The factors that determine whether you build "up" or "out"

EDUCATIONAL REQUIREMENTS

When all other things are equal, it is most desirable for younger children to be housed in a school on a single level. The primary school, in particular, should try to provide the child with an easy and natural transition from home to school. In many ways, the single-story school is more consistent with this objective. It is easier to scale to the young child's dimensions. Ceilings and entrances can be made smaller to subdue the impression of size. The child is constantly aware of such reassuringly familiar things as trees, landscaping, and absence of height. Greater use of natural light is permitted, thereby lessening the institutional impact of some artificial lighting. When an extremely compact site forces the consideration of a multi-story school, planning should be aimed at placing older children on the upper levels.

Oddly enough, however, if an extremely large elementary school is planned, it is often better to consider two stories. Spreading a single-story school for young children over too large an area often gives an impression of vastness. Long corridors with unbroken wall surfaces have a tendency to awe the child. Excessive travel is required.

At the high school level, children are usually as well served by multi-story as by a single-story building. The number of pupils to be accommodated is an important factor. A good rule of thumb to apply, barring unusual conditions of site, seems to indicate that anywhere from one to 800 pupils indicates a single-story structure; from 800 to 1,200 pupils there is an option; and for 1,200 or more, multi-story is dictated. It is also well to remember that secondary education usually involves travel between classes, and the multi-story plan keeps distances to the minimum.

SITE SIZE

The topography and geology of the school site are the most important considerations in determining what kind of school will be built, although the size of the site is also a factor. The practice recommended by most state educational departments for elementary schools is a minimum of *five usable* acres, plus a minimum of one usable acre for every 100 students. For high schools, the general rule of thumb is 10 *usable* acres plus one usable acre for every 100 students. Contrary to common belief, multi-story construction doesn't save much land space *(see diagrams, below).*

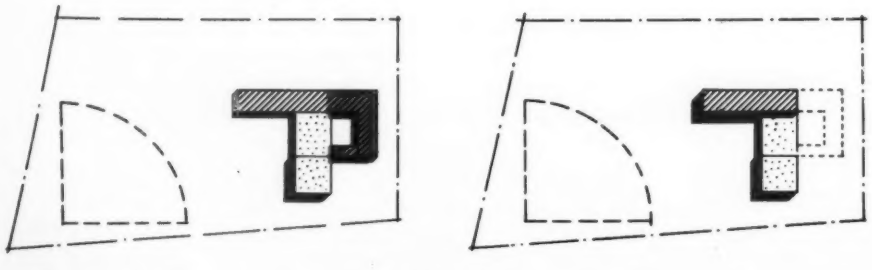
On the other hand, the single-story spread-out campus plan obviously would not be suited to a smaller-than-standard plot.

Topography is a critical factor. A flat piece of land lends itself well to single-story construction since all floors can normally be poured on grade, thus eliminating expensive floor framing and reinforcement. A sloping site dictates a combination of single- and multi-story—the so-called "split level."

Soil conditions are another consideration. Loose or sandy soil with poor bearing characteristics will complicate the foundation for a multi-story structure. On the other hand, excessive rock out-cropping, or hilly terrain, will involve costly land moving, hence multi-story construction may become more attractive.

adequate site—one-story building

same site—two-story building



Two-stories don't save much land—As these two diagrams show, a good-sized one-story school placed on a site of 7⅓ acres will use only about a third of one acre more land than a two-story structure. The differential comes in the classroom area since other facilities, such as gymnasium, auditorium and cafeteria, are handled in a separate self-contained wing.

CLIMATE

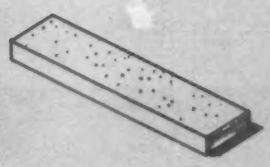
In most areas of the United States the generally temperate climate permits either single-story or multi-story school construction. Climate becomes a consideration, however, in the more extreme areas. A multi-story structure is generally easier and less expensive to heat than a single-story, spread-out building, and therefore would be preferred in colder climates. In a warmer zone, the single-story school building, with all indoor space directly connected to the outdoors,

text continued on page 30

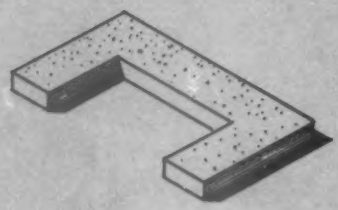
WHAT KIND OF BUILDING DO YOU NEED?

Your architect can provide a variety of building plans and, just as in the case of the one-story vs. two-story decision, your choice will be determined by the various physical and educational factors discussed on the facing page. The building type you choose will probably dictate whether you build "up" or "out".

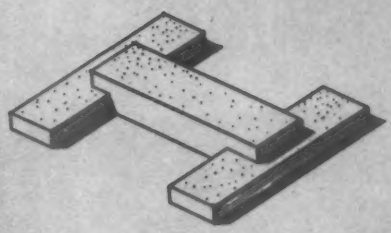
SIMPLE BAR



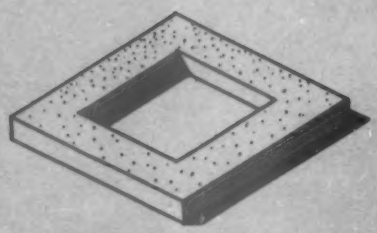
DOUBLE WING



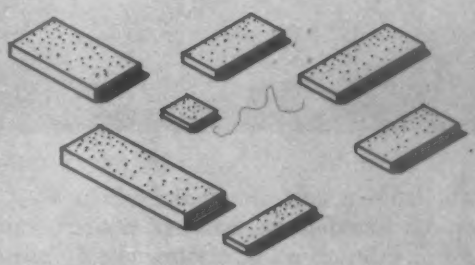
CORE WITH WINGS



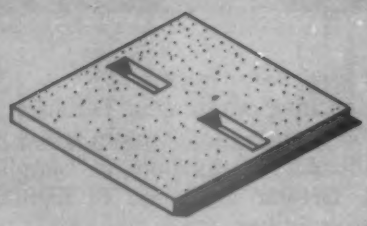
COURT



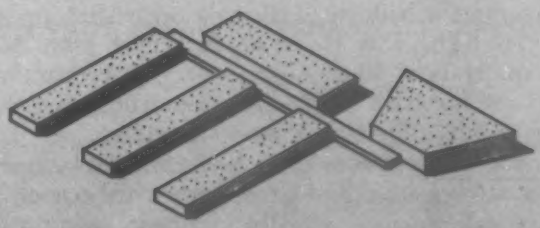
CAMPUS



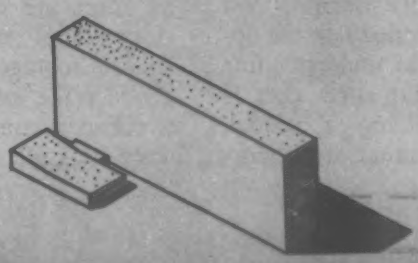
LOFT

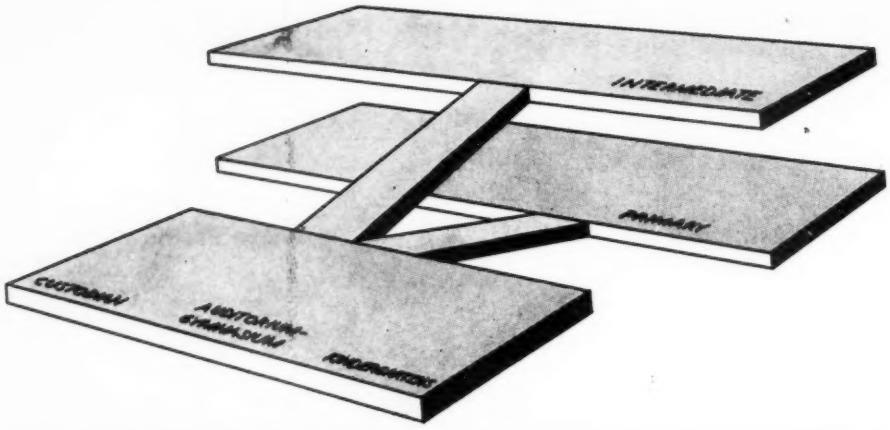


FINGER



HIGH RISE





On a sloping site, *the "split-level" design is both economical and functionally effective. The Sharon, Conn., elementary school, illustrated here, is an excellent example of this type of structure.*

photo by Joseph W. Molitor

text continued from page 28

has positive advantages. The use of outdoor areas as classroom space is facilitated. Ventilation is simplified. Greater utilization of natural lighting is permitted.

SAFETY FACTORS

Without question, a one-story building is more quickly evacuated in the case of fire than a building two or more stories high. This is an important consideration when younger children are involved. In addition, the elimination of stairs reduces the number of accidents which occur on stairways in even the best disciplined schools.

CONSTRUCTION COSTS

To understand the detailed cost comparison which follows on the opposite page, a basic understanding of the elements that affect cost is necessary. In building a school, these are the items that are important from a cost standpoint: excavation; foundations; framing; floors; stairs; exterior walls; roofing; heating; plumbing; electrical installation; and maintenance.

Excavation for a one-story school is more costly since a greater land area is involved. On the other hand, foundations for the single-story school will be lighter, a saving that is somewhat negated by the fact that they must be longer. In general, the preparation of land and foundation favors the multi-story structure.

A definite advantage accrues to the single-story school, however, in the framing area, where lighter framework is required than for several stories. The same applies so far as floors are concerned. A single-story school requires somewhat less square footage of floor space to produce the same usable area, and a cheaper construction is possible since it is all on the ground floor.

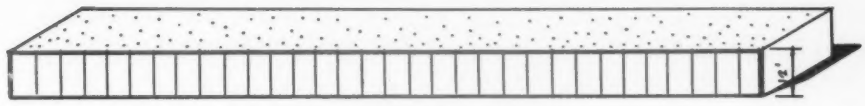
In the case of exterior walls, the two types of structures will be approximately the same, with a slight additional cost factor accruing to the two-story building. Roofing is a definite plus for the two-story structure in that it is only slightly more than half of what would be required for a single-story unit.

Installation of the heating plant and plumbing favors multi-story, but fewer plumbing fixtures are usually found in a single-level plant. Electrical costs are about the same in either case.

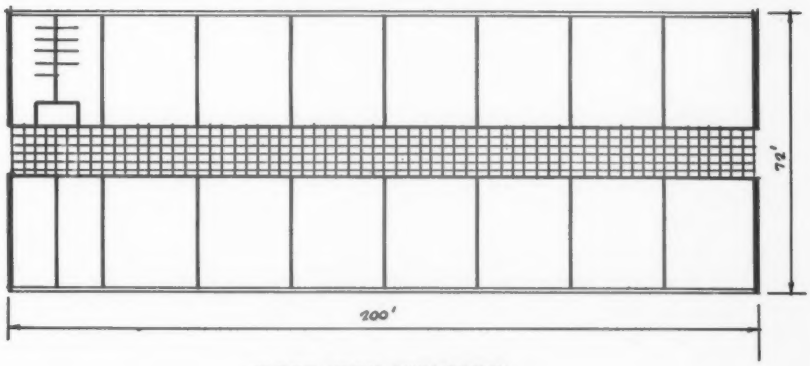
Maintenance-wise, the single-story school favors such constant factors as window washing, painting, reglazing, general repairs, and floor waxing. Heating, however, is cheaper when one builds upward.

It is also important to recognize that expansion of a school is easier when the single-story structure is involved. This is particularly true when the campus plan is involved.

A step-by-step comparison of one-story vs two-story construction



ELEVATION ONE-STORY



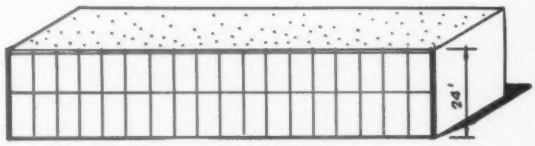
FLOOR PLAN ONE-STORY

■ These simplified sketches show a typical 14-classroom wing using one- and two-story design. Facilities in each are about the same. The single-story structure has one set of toilet facilities at the far left, plus a storage room on the opposite side of the corridor. The two-story building requires two sets of toilets, one on each floor, plus two stairwells, one at either end of the wing.

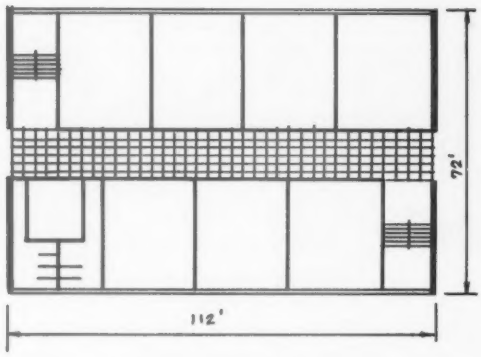
The most apparent difference between the two buildings (*see table*) lies in the fact that the two-story structure requires 1,728 sq. ft. *more* space to provide an equal number of classrooms. Thus, at $17 per sq. ft., the two-story structure starts off with a handicap of almost $30,000 in comparison.

Under ideal conditions, excavation for the two-story building would be about $600 to $1,000 less than for the one-story building because of the smaller area involved. Roof area is also less, a considerable saving. This is counterbalanced by the greater exterior wall required in the two story building and by the cost of building stairways.

The table below details the cost factors under ideal conditions where level land and good soil conditions prevail. *(text continued on following page.)*



ELEVATION TWO-STORY



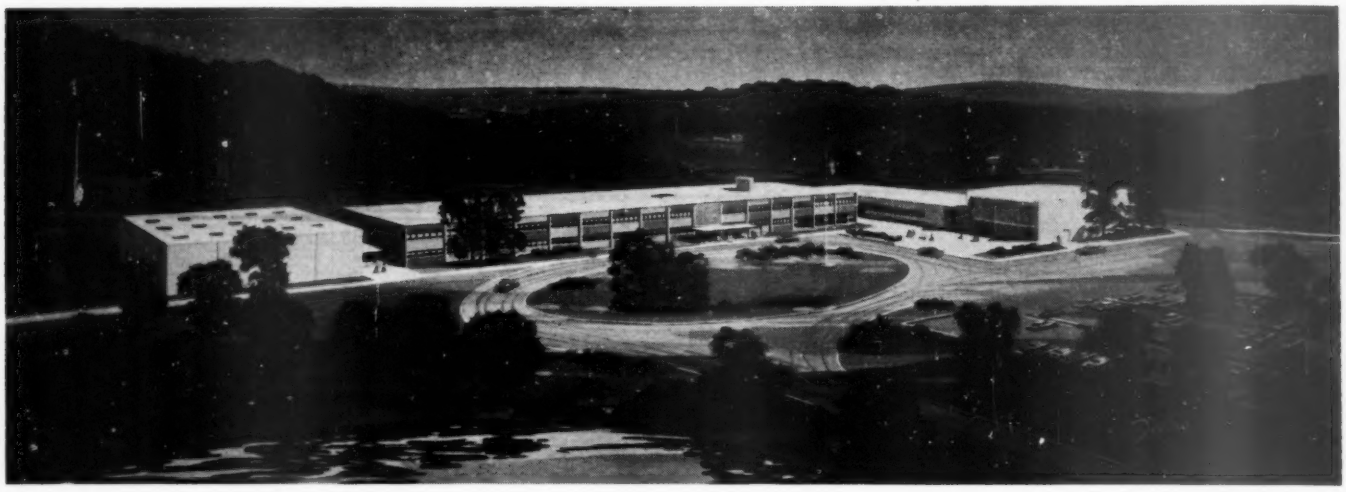
FLOOR PLAN TWO-STORY

COMPARISON OF THE PHYSICAL COST FACTORS IN ONE- AND TWO-STORY CONSTRUCTION

	ONE-STORY	TWO-STORY
Excavation	More costly	Less costly
Foundations	Light but long—cost about same	Heavy but short—cost about same
Framing	Lighter—less costly	Heavier—more costly
Floors	14,400 sq. ft.; cheap ground floor	16,128 sq. ft.; costly second floor
Stairs	None—no cost	Two required—costly
Exterior walls	6,528 sq. ft.—less costly	8,832 sq. ft.—more costly
Roof	14,400 sq. ft.—costs more	8,064 sq. ft.—costs less
Heating	Costs more	Costs less
Plumbing	One set of toilets—costs less	Two sets of smaller toilets cost slightly more
Electrical	Same	Same

A CASE STUDY

Why Naugatuck chose a two-story school



THE FACTS

Teaching stations required	52	
Area of building required	130,000 sq. ft.	
Costs (estimated, not yet out for bids)		
Building only	$2,000,000	
Site work	120,000	
Total cost		**$2,120,000**
Cost per square foot—Building only	$15.40	
Pupil capacity	1300 pupils	
Cost per pupil	$1540	
Number of square feet per pupil	1000 sq. ft.	

THE REASONING

Naugatuck's decision to build a two-story high school was dictated almost overwhelmingly by site considerations. Additionally, basic factors which counted in the decision were educational program, finances and intangibles. Climate and safety factors played no determining role.

The overall site in Naugatuck is 53 acres, of which approximately 28 acres are unuseable because of a steep, irregular hillside, which runs the length of the site. The level balance, or 25 acres at the bottom of the slope, meets the rule of thumb requirement for high schools of 10 useable acres plus one useable acre for every 100 students. The school is being built for 1300 students, to be expanded to 1500.

Of the useable 25 acres, approximately 20 are occupied by athletic facilities, parking, roads, service areas, area to be set aside for expansion, and a natural pond existing on the site. This leaves five acres for the actual building.

The building as designed has 130,000 square feet, 100,000 of which are in the two-story classroom wing. Special facilities, such as auditorium, gymnasium and industrial arts which are approximately 25% of building space, were extracted from the basic plan, and did not figure in the number of stories decision, because they are spaces which would be one-story under any conditions. If the 100,000 sq. ft. Naugatuck classroom unit were made into a one-story element, the total building area would be approximately 180,000 sq. ft. Theoretically, a unit of this size could be placed on five acres, or 200,000 sq. ft., but under actual design conditions, practical considerations of proper daylighting, entrances, and separation between wings make this almost impossible.

The site limitations prompted an early study of a possible *three-story* solution, which was not acceptable to school authorities. The logical solution, therefore, was a two-story bar-type structure, tucked into the base of the slope, leaving maximum area for other uses.

Fortunately, there was no rock or other subsoil deterrents to multi-story construction in the level area.

From an educational point of view, 1300 students is within the normal range for consideration of multi-story building, but does not alone dictate more than one-story.

The multi-story plan provides ease of mobility and communication. The 400 foot length of the building, as now planned, is maximum for ease of movement between classes. A single-story building of the same area would have placed classrooms in impractical, remote locations. A unit plan, which to a certain extent would overcome this problem, was definitely ruled

out by the limited size of the Naugatuck site.

Normally, multi-story construction might be more expensive than single-story work, but in this case, by lifting out the special facility units, and keeping the classroom wing in modules of classroom size, economies are obtained through application of mass production techniques to repetitive construction of similar units.

An intangible, and important consideration is that the mass of the structure gives importance and dignity to the building which is reflected in the student, and yet fits the school into the semi-urban surroundings, which include industrial units, as well as private residences.

In the Naugatuck case, site considerations simplified the decision, because these dictated the answer. But the other relevant factors had to be cross-checked to insure no serious contradictions and to develop the best overall plan.

A CASE STUDY

Why Westport chose a one-story school

THE FACTS

Teaching stations required	63	
Area of building required	149,800 sq. ft.	
Costs (actual)		
Building only	$2,716,000	
Site work	561,000	
Total cost		**$3,277,000**
Cost per square foot—Building only	$18.10	
Pupil capacity	1500 pupils	
Cost per pupil	$1800.00	
Number of square feet per pupil	1000 sq. ft.	

THE REASONING

Westport based its decision to construct a one-story school on three basic points: educational program, site and the intent to expand the school at a future date. In this instance, climate and safety factors were not pertinent, and financial considerations were a result of decisions based on other main points.

The high school educational program in Westport is departmentalized. This separation of the educational elements, such as social studies, languages, etc. logically lends itself to a unit or campus plan, where each department can occupy an individual building. A unit plan requires a large site, which was available here. Total available acreage was 60 acres. The unit plan, further, is almost always best accomplished in one-story. The economy and scale advantages which are achieved by the unit plan are sacrificed in a two-story building. These facts alone almost would have been strong enough to rule out two stories in Westport.

The Westport educational pro-

gram required a school to accommodate 1500 pupils with provision for substantial expansion—to 1800 pupils. A one-story school is more adaptable to expansion and the unit plan is the easiest type of one-story plan to expand. Even expanded, no single unit in Westport is so big as to demand two-story construction.

The Westport site is large, but useable areas are broken and disjointed, due to irregular topography. There are no large, flat areas that would be economically suitable for a single unit, multi-story building. A one-story unit plan permitted flexibility in location of the units so that rock could be avoided. Where rock could not be avoided, the one-story unit still held an advantage due to the fact that shallower foundations were required than for a two-story structure.

The Westport school is in the upper size limits for a surburban high school. Given this size, it was essential to reduce the apparent mass of the building so that its scale is not overwhelming to the adolescent. Two stories, to accommodate this number of students, would have been an exceptionally large mass. One-story units, on the other hand, complement the immediately surrounding residential area. A multi-story school would have been out of keeping with the architecture of the area.

The one-story decision is supported by budgetary considerations. Two-story construction would have entailed considerably more site work, rock excavation and foundation work. Economies also were achieved because the Westport units are large enough to take advantage of modular, large scale construction techniques.

In the Westport case, no one of the three basic considerations alone would lead to a solution of the single-story vs. multi-story problem. However, in proper relationship, the sum of the parts provides a clear cut answer.

While a comparison of the Naugatuck and Westport schools appear to favor two-story construction on a cost basis, such is *not* the case. For a detailed comparison of the cost of these two schools, see pages 32 and 33.

Did Westport really cost more?

An almost immediate exclamation from persons who have reviewed the comparative costs for the Westport and Naugatuck schools presented on the preceding pages is "but Westport costs so much more than Naugatuck—$18.10 per square foot of building vs. $15.40!"

"Not so," according to architect Lester Smith. Smith states that "if all of the factors built into each of these cost figures were analyzed, it would become apparent that the one-story school in Westport is as economical as Naugatuck's two-story building."

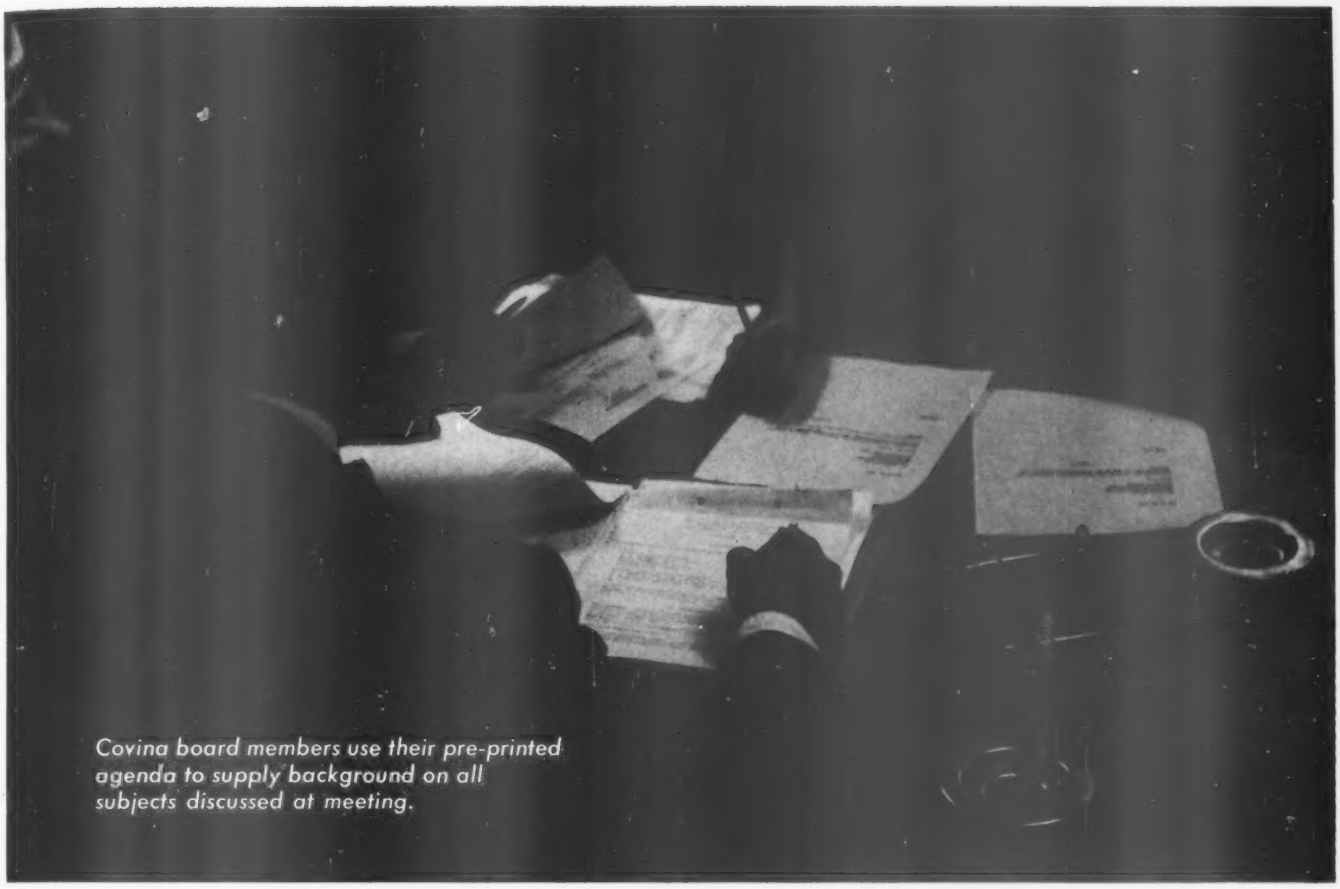
Smith bases his explanation on three main factors: (1) time of bid; (2) area labor and material costs; (3) build-in expansion in the Westport school.

The most dramatic of the cost differences is found in the *time of bid*. Westport was put out to bid in the early part of 1957, a year in which construction costs bumped their ceiling. Naugatuck is not yet out for bids, but is expected to be out in the near future. Construction costs have been in a nosedive in the last several months, and it is expected that similar construction today will be approximately $2 per square foot less than a year ago.

Secondly, Smith points out that Westport is located in what is widely regarded as "Exurbia," an area which draws its labor and materials from the New York City Metropolitan area. This is traditionally a high-cost area and these high costs are reflected in the Westport school. Naugatuck, on the other hand draws its labor and supplies from Hartford, Bridgeport and other northern Connecticut locales. This accounts for as much as $1 a square foot in construction costs of each school, according to Smith.

The matter of "built-in expansion" is pertinent to the question in several ways. Though Westport is being built initially to have 63 teaching stations, it is planned for expansion to approximately 75 stations, that is from 1500 to 1800 pupils. Many of the core facilities, such as auditorium, boiler plant, cafeteria, and gymnasium, are being constructed so that little or no additional investment will be involved in their expansion, and many of the specialized facilities, such as science rooms, fine arts rooms and music rooms are also being equipped to meet the expansion. In addition, Westport has a higher proportion of built-in equipment of all kinds, which is reflected in construction costs, rather than as furnishings. As opposed to the theme of "expansion" in Westport, Naugatuck's classroom space was forced in modular units to meet the close budget which governs that situation. Therefore, Naugatuck's theme might be "economy" and Westport, while economical itself, is being built with "expansion" more in the limelight—necessarily involving some extra expense.

Review of these factors, Mr. Smith says, makes even more clear the position that cost is very often a misleading determinant in the single-story vs. multi-story question. A first glance at these two schools would indicate that the two-story school is cheaper, but analysis of other factors brings out the closeness of their costs, and what actually is being obtained for the money. **End**



Covina board members use their pre-printed agenda to supply background on all subjects discussed at meeting.

By preparing an agenda in advance and putting all pertinent information in members' hands, Covina, Calif. has discovered . . .

How to streamline schoolboard meetings

BY DR. PAUL SALMON

Superintendent, Covina, Calif.

■ ■ ■ In the "good old days" before population began to swell, when the teacher shortage was not yet an acute problem, when the Reader's Digest wrote about microbes, and when taxpayers directed their ire at Washington, a school board meeting was almost always an informal gathering of a few leading citizens of the town.

In this setting, boards—as a regular practice—identified problems, discussed them, and took action on them, all in the same evening. They could do so because 1) their population was stable; 2) they had members on the board who had a broad background of information concerning the community as well as all aspects of direct operation; and 3) boards were required to make a relatively small number of major policy decisions.

This has changed. Today, running a school district is a big, complicated business. Our town is typical.

In 1950, the Covina, California, district had slightly more than 1,000 students housed in two schools. Today, the enrollment stands at better than 11,000 with 15 schools operating. It is conservatively predicted that the district will continue to grow so that by 1962 it will have at least 19,000 students and some 32 schools. The problems facing the board have expanded in proportion to the enrollment.

The board has become acutely

text continued on page 62

AIDES AND SECRETARIES

One way to solve your school's classroom and teacher shortage

Better teacher utilization, which simply means making more efficient use of the talents of your teachers, can save classroom space as well as salaries. Here's how one district has made it pay—while increasing student achievement.

■ ■ ■ One of the thorniest problems in today's overcrowded public schools is that of equalizing the student population in individual classrooms. The policy of most school boards is to limit the number of students in any classroom, usually to about 30. But, since children do not come in neat little bundles of 30, such a ceiling is, as every school administrator knows, frequently impossible to enforce. You can do it by hiring more teachers and building more classrooms. Even then, the problem is only solved if these new classrooms and teachers are fully utilized.

For instance: If your school does limit classroom population to 30, what would it do if it suddenly found it had 100 students in the third grade, but only three classrooms and three teachers to handle them? If a new classroom was built to spread the load, and a new teacher hired, neither would be fully utilized.

One school system has solved these interwoven problems by making better use of the time and talents of its teachers: the city of San Angelo, a west Texas community of 80,000 persons, with 10,000 students.

More than a year ago, San Angelo's board of education and Superintendent G. B. Wadzeck began what he terms an "open-minded" analysis of teacher and classroom utilization, a study that resulted in the hiring last year of teacher aides and teacher secretaries.

Since then, San Angelo has been able to save its taxpayers an estimated $34,000 in teachers' salaries alone. If the program continues to operate successfully, future savings will include the cost of an additional 40 classrooms that otherwise would be needed.

Most significant of all, however, is that San Angelo's students show greater gains in learning.

It was the teachers themselves, Wadzeck says, who suggested a solution to the multi-headed problem of teacher scarcity and classroom crowding. Too much of a teacher's time, they said, is spent in jobs that have nothing to do with the education of children.

"If the teachers were relieved of these tasks," Wadzeck relates, "we knew they could do a considerably better job as teachers." And, as every good business executive knows, there is no economy in hiring a skilled worker to do unskilled work.

Unequal classes

As in most schools, crowding was erratic in San Angelo. Although the majority of teachers were carrying normal student loads of about 30, there were too many who had either an unwieldy class of considerably more than 30, or a light class of less than 20. It was not physically possible to equalize them without hiring more teachers and building more classrooms.

"This is a permanent problem that seems to exist in all the school systems where I have worked or visited. We felt, however, that it was not in the best interests of the children, or the morale of the teachers, to continue to ignore it," says Wadzeck.

The school board's policy at that time was to at-

tempt to split a class when it passed the 30 mark. But in most instances it was not possible, or economical, to do this. And when it was done, it only further aggravated the problem by failing to give equitable relief to all the teachers who needed it. The result, says Wadzeck, was ill-will and resentment.

As many as 30% of the teachers had more children than they could handle, Wadzeck explained, or not enough to make efficient use of either the teacher or the classroom.

In its study, San Angelo found it had to take into consideration the amount of space available in its classrooms before beginning to attack the problem. "Size of the classroom determines what can be done," Wadzeck said. "If a classroom can hold 33 pupils but houses only 25, space is wasted." On the other hand, 33 can't be squeezed into a classroom for 25.

Wadzeck's own experience led him to conclude that 25 sq. ft. of floor space per student is the bare minimum basis by which to determine classroom capacity. Thirty square feet is much more satisfactory, he believes, with 35 sq. ft. desirable.

On this basis, San Angelo approached the problem, found it could house up to 35 students in 60% of the rooms. Twenty percent were small, limited to about 28 students, but the remaining 20% were capable of holding as many as 40.

To illustrate the extent of the classroom load imbalance, Wadzeck points out that, at the time, the average student-to-teacher ratio was about 21 to one, a disheartening fact to a teacher with 35 pupils. This ratio accounted for two special teachers who taught only music or physical education. Their addition to the staff had been an early effort by San Angelo to give some relief to the overburdened teacher.

Since its new teacher utilization program has been in effect, the teacher-pupil ratio has increased to 28 to one, which means more pupils are being taught without a proportionate increase in teachers. Assuming this ratio continues to rise, if only to 30, says Wadzeck, San Angelo will be spared the immediate cost of constructing 40 new classrooms.

Although the principal's office in each school maintained a clerical and secretarial pool to help teachers with necessary paper work, this assistance was available to all teachers, even those who had time to do the work themselves. This added to the inequities which finally moved San Angelo to action.

Types of teacher aid

In establishing the program, San Angelo made use of three categories of teacher assistance:

Teacher aides—certified teachers who assist the classroom teacher in non-teaching chores and in actual instruction.

Remedial teachers—certified personnel who alleviate congestion by removing exceptional children, both slow and fast, from several overcrowded classrooms during the day to give them special training.

Teacher Secretaries— non-teaching personnel, many

continued on page 74

PROBLEMS THE PROGRAM CAN SOLVE

1 Classroom shortage

A fourth grade in a given school has 100 students. Board policy dictates a maximum of 30 pupils per class but the classrooms can house up to 35. Ordinarily, four classrooms and four teachers would be required, but neither rooms nor teachers would be fully utilized.

Under the San Angelo plan, three rooms and three teachers are adequate. Each class would average 33.3 students, but each teacher would receive up to three hours of clerical assistance or the services of an aide or a remedial teacher every day.

***Result:** Students get more individual attention, a classroom and salary costs are saved.*

2 Unequal teacher load

A fourth grade numbering 100 students must be housed in two rooms with a capacity of 30 and one large room that can accommodate 40 or more. One teacher carries an unfair burden and her pupils do not receive adequate attention. Under the San Angelo plan, two classes would have 31 pupils each, and the two teachers would both receive secretarial help to relieve them of non-teaching chores. The third class would have 38 students, and the teacher would receive secretarial help plus the services of a remedial teacher (who would also work in other crowded classes) to work with a small group of slow or fast students separately.

***Result:** Equal classroom loads, more effective education, efficient use of space, reduced salary costs.*

3 Teacher shortage

A school has 75 students in its third grade, but only two teachers are available. There are, however, three rooms, one small one with a capacity of 25, and two able to house 35. The third grade is divided in half and placed in the two large rooms where teachers receive clerical help. A remedial teacher conducts classes in the small room, not only for the overcrowded third grade, but for other overloaded classes as well.

***Results:** No wasted classrooms, increased utilization of the available teaching staff, eliminating the need for a hard-to-get teacher, plus all the benefits cited in the other two examples.*

TOOLS OF THE SCHOOLS

A GUIDE TO BETTER MANAGEMENT METHODS

How to simplify student registration

A low-cost, fool-proof system that takes the confusion and clerical drudgery out of the first week of school.

■ ■ ■ In almost every high school, the first weeks of a new semester are confused by paperwork problems. The mess—and that's the proper name for it—is produced by three complicated processes:

1) Registering the students.
2) Assigning students to classes
3) Scheduling the program based on student electives

In recent years, schools have been borrowing heavily from the experience of large industrial companies in handling similar problems. Punched card methods, for example, are no longer a rarity in public schools. The system described below is still another example, drawn from the experience of business, of simplifying repetitive writing jobs.

The idea behind the system

The enrollment system of Crispus Attucks High School is simple and inexpensive. It requires no complicated or costly equipment—simply a duplicating machine of the type found in every school. Best of all, the teaching staff is almost completely relieved of clerical chores. One person, in the office, is able to assign 1,500 students to class virtually without assistance.

Here's how the system works. About a month before the end of a semester, the home room teacher puts each of her students' names and other personal information on a specially prepared form. This form is a "duplicating master". The master differs from traditional masters used in duplicating machines in only two respects: constant information is *pre-printed,* and the duplicating medium is smudge-proof so that it can be handled without staining the hands of people who use it.

About a week after the personal information has been filled out, the forms are sent to a guidance counsellor who discusses with each student his course selections for the next term. As the student selects his subjects, the guidance counsellor fills in these selections on the same master form, using a ball point pen.

The master forms are then sent to the pupil personnel office. Here, the subject selections for all the children are counted in order to determine the total number of classes needed in each subject for the following semester. With this information, the various sections of each class are scheduled.

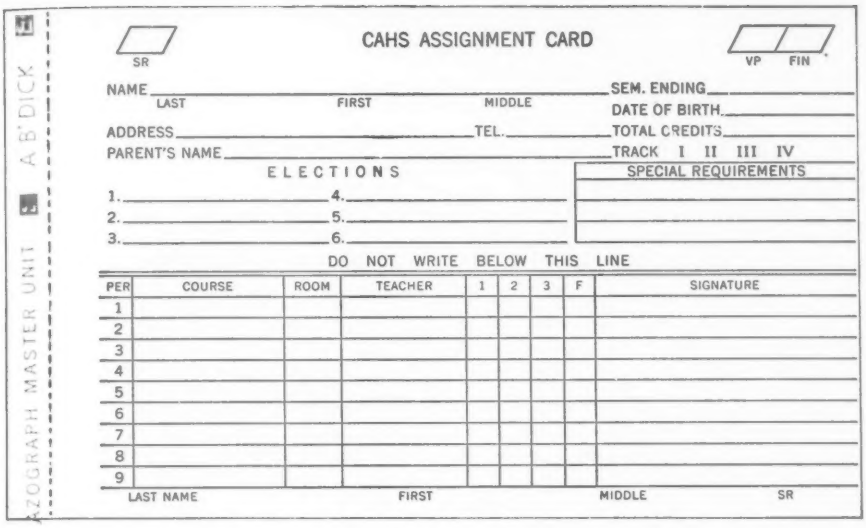
When the scheduling is complete and each pupil has his room numbers and teachers assigned, this information is entered on the master form, again with a ball point pen.

Finally, the completed masters —one for each student—are sent to the school office. Here, in the duplicating section, 15 copies of each form are run off on different colored cards. The cards are then distributed (*see opposite page for distribution schedule*).

Advantages of the system

On the first day that classes begin, every pertinent person in the school—including the student—has a standardized record of the information he or she needs to do his job. In the case of a teacher, she has a complete roster for first day attendance—and no additional clerical work. Each of the various administrative centers has its complete record of the schedule and whereabouts of each child. And each student has his personal copy of his schedule, room assignments and teachers.

Best of all, the variety of different size and shape forms previously used is eliminated. The information about each student at each location is exactly the same—since the possibility of transcription errors has been eliminated. The teaching process is able to start on the first day of school, without confusion and with positive control of attendance.



AZOGRAPH MASTER UNIT A B DICK

SR

CAHS ASSIGNMENT CARD

VP FIN

NAME _____ (LAST FIRST MIDDLE) SEM. ENDING _____

DATE OF BIRTH _____

ADDRESS _____ TEL. _____ TOTAL CREDITS _____

PARENT'S NAME _____ TRACK I II III IV

ELECTIONS

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

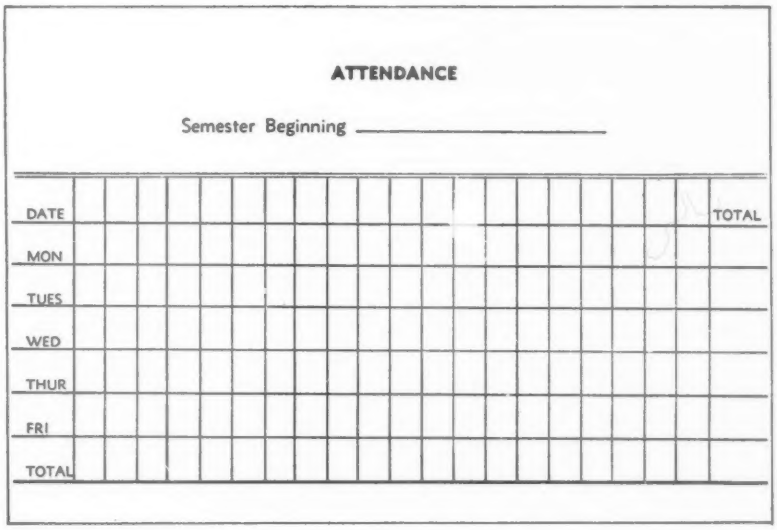
SPECIAL REQUIREMENTS

DO NOT WRITE BELOW THIS LINE

PER	COURSE	ROOM	TEACHER	1	2	3	F	SIGNATURE
1								
2								
3								
4								
5								
6								
7								
8								
9								

LAST NAME FIRST MIDDLE SR

This duplicating master is filled-in with ball point pen by three individuals. Personal information at the top is filled-in by the home room teacher. Subjects elected are filled in by the guidance counsellor in the next step. Finally, schedules and room number and teacher assignments are filled in by the personnel office in the spaces provided.



ATTENDANCE

Semester Beginning _____

DATE																				TOTAL
MON																				
TUES																				
WED																				
THUR																				
FRI																				
TOTAL																				

HOW COPIES ARE DISTRIBUTED

Copies of the master are duplicated on pre-collated sets of color coded cards. The attendance record for the child is also pre-printed on the forms on their reverse sides. Fifteen copies of each master are run off and distributed to the following people:

Home room teacher: *two copies—one yellow locater card and one blue attendance card.*

Main office: *two copies—one yellow locater card and one buff card for end-of-semester grades.*

Student: *one copy—a salmon colored card for class location and room numbers.*

Vice-principal: *one copy—a yellow locater card.*

Counselling center: *one copy—a yellow locater card.*

Dean of Boys or Dean of Girls: *one copy—a yellow locater card.*

Classroom teachers: *seven copies—one white card per student goes to each of his classes for attendance record purposes.*

What the principal says:

". . . We needed a student admissions and registration system that would 1) eliminate the use of various forms; 2) save time and work of our teaching personnel; 3) save the innumerable errors that are bound to occur when a great amount of copying is done and 4) expedite the assignment of students to class so that students would know where they were to go on the first day of the semester.

". . . We have found that with our new Azograph admissions and registration system, one person is able to assign our 1,500 students to class in a period of three weeks; that the same person is able to furnish 1) each teacher a class assignment card for each student assigned to his class; 2) a locater card for each of five files; 3) an attendance card; 4) a class card for each student and 5) a semi-permanent record card for final semester grades.

". . . Our students now begin classes on the first day of the semester instead of being delayed and confused for the first two weeks. With this new system, we are able to have our schedule, class assignments and teahcers' assignments ready by the end of December for the semester that begins in January. This is more than two weeks ahead of the usual time under our old method. Now, all students begin classes promptly and registration confusion has been eliminated."

A. M. Moore
Principal
Crispus Attucks High School

PORTABLE LABORATORIES

can they help you provide a better science program?

Oklahoma State University is sending a chemistry laboratory on wheels to 18 schools which had lacked adequate equipment to teach this subject.

■ ■ ■ Oklahoma State University initiated a Chemistry Labmobile experiment in September, 1957, in an attempt to provide a practical method of stimulation to science programs in small high schools. Reorganization of school districts in Oklahoma eventually may virtually eliminate small high schools, but progress in this direction has been moving at a slow pace. The Labmobile represents an attempt to enrich the high school science curricula within the existing framework of school districts and limited budgets.

Eighteen schools were organized into a unit to be served by the mobile laboratory. The unit is equipped with apparatus and supplies to provide laboratory experiences for as many as 20 chemistry students in each of the 18 schools. The materials are transported in a station wagon from school to school, and are shuttled into the classrooms by the students for regular bi-weekly laboratory sessions. The station wagon is manned by a high school chemistry teacher who assumes primary responsibility for the laboratory instruction and works as a co-ordinator and counselor with the local science teachers.

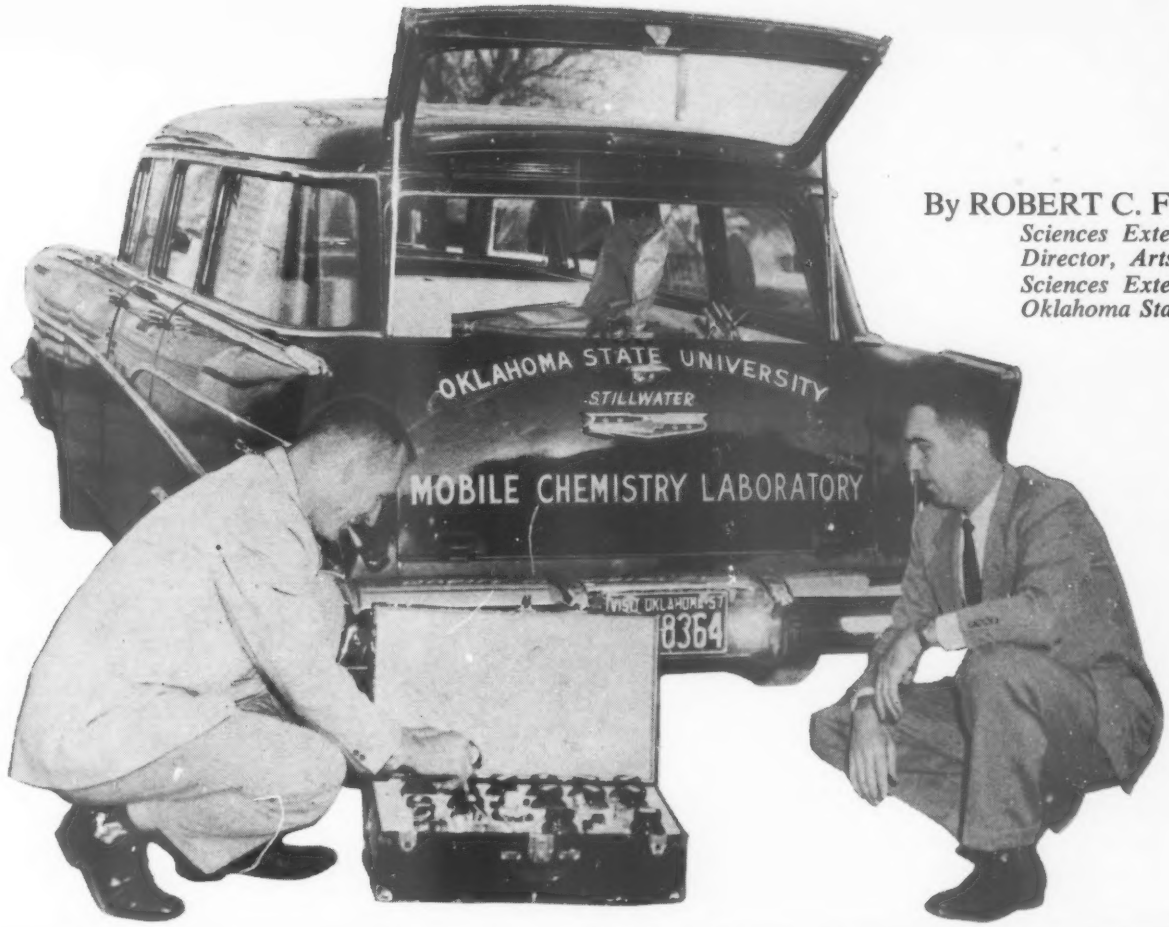
This arrangement is permitting schools to offer a very strong course in high school chemistry without the necessity of a large investment in laboratory space, supplies and equipment.

The initial attempt to organize such a project was launched in the summer of 1956. A three-page form letter was mailed to superintendents throughout the state describing the proposal and asking for an expression of interest. The response to this letter was gratifying but somewhat less than hoped for. Although an adequate number of schools to make a unit feasible promptly indicated an interest, they were widely dispersed geographically and would have required far too much time and expense for the Labmobile to move among them on a regular schedule.

Those that had responded to our inquiry were notified that the program would be delayed until a suitable number of schools within a limited area could be interested in the plan. It was believed that any one of several areas could be organized into a unit by adequately explaining the program and developing the details early enough for the science class to be included in the schedule.

During 1956-57, however, another limiting factor developed. Instruction in both chemistry and physics was to be undertaken via Oklahoma City's KETA television during the next school year. *(See box, page 44.)* Although the laboratory and theoretical instruction by television seemed highly compatible, the two ideas had been developed separately and it did not

This article is taken from a speech presented by Mr. Fite at the American Association of School Administrators' regional convention in St. Louis.



By ROBERT C. FITE
Sciences Extension Director, Arts and Sciences Extension Oklahoma State U.

appear feasible to attempt unification at this time. The decision was then made to choose an area for the Labmobile experiment which lay outside the reception range of the television station to avoid possible conflict. South central Oklahoma where the Arbuckle Mountains effectively block television reception from Oklahoma City and where more than an adequate number of suitable schools are located seemed to be quite favorable. Also, some interest in the program had been shown by schools in this area from the start. These factors provided the necessary initial encouragement.

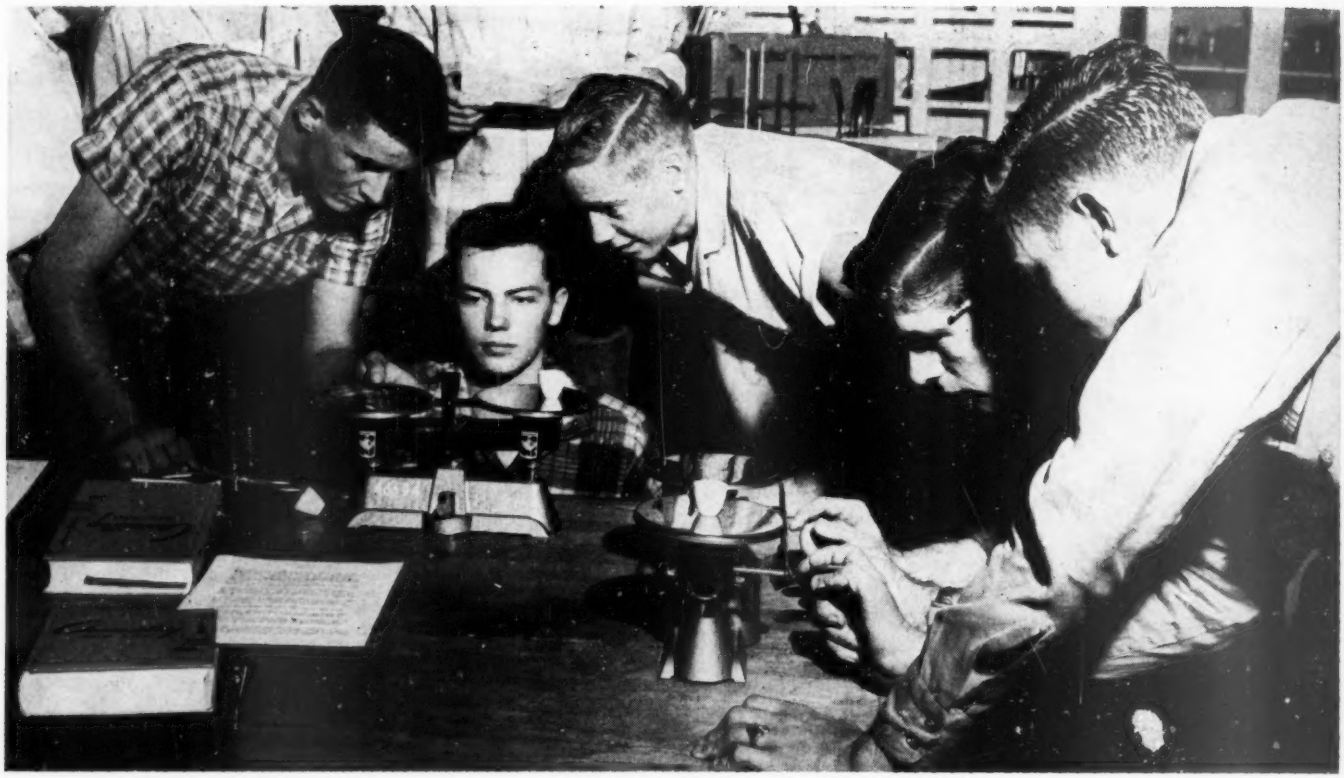
A form letter describing the proposed program was prepared and sent to the superintendents of 40 high schools located within a 50-mile radius of Ardmore, Okla. Of these schools, seven already had science programs and did not wish to participate. Other schools subsequently were lost at the close of the 1956-57 school year by consolidation. Well over 50% of the remaining eligible schools did join the project. In fact, only two schools were finally added to the schedule from outside the original list.

Preparing the laboratory

A survey among the co-operating schools indicated a preference for chemistry over physics the first year, so the program was developed for chemistry with the understanding that physics could be attempted in the same manner the following year. Oklahoma State University purchased a new 1957-model Chevrolet station wagon for the project and outfitted it with chemistry apparatus and supplies worth more than $2,500. These materials are stored in a space donated by the Ardmore schools. The university hired Mr. Claude Gatewood as instructor to accompany the laboratory and to be in general charge of instruction. He was an experienced chemistry teacher from Houston, Tex., and had just completed the academic-year institute for science teachers at Oklahoma State University.

Gatewood selected a text from those adopted in Oklahoma with the aid of a questionnaire to science teachers. He wrote a syllabus and prepared exercises and tests for the course. These were duplicated at the university in sufficient quantity for the anticipated needs of all students and teachers in the program. Gatewood also had a free hand in the selection of all apparatus and supplies.

In addition to the above, the university's library provided 190 volumes, representing 70 different titles, from a list of 200 books recommended by the American Association for the Advancement of Science as good science literature for high school students. These books were catalogued and are rotated among the schools in groups of 10 at six weeks intervals, making 60 different titles available to each school during the year. The subject



Chemistry experiment is performed by students at Waurika High School with equipment from Labmobile.

matter of this literature is not limited to chemistry, but also includes mathematics, physics, biology, medicine, meteorology and other topics.

The laboratory schedule

Scheduling the laboratory among 18 schools presented some problems. The final schedule was based on the following factors:

1. *Date of the beginning of school.*
2. *Preference among the days of the week.*
3. *Preference between morning or afternoon sessions.*
4. *Geographical location of each school.*
5. *Necessity to increase the ratio between instruction time and travel time requirements.*

Wherever practical, those schools that started first were scheduled in the first week of operation. All schools were in session one week or more before the first official visit by the laboratory.

In general, the schools were able to choose the preferred day of the week and time of day, but each school had been forewarned that its requests in this matter might not be feasible in the total program. The few adjustments necessary were accepted by the respective schools in fine spirit.

A weekly visit to each school would have been desirable so that laboratory sessions would fit the normal school routine. However, a double period on a bi-weekly schedule was adopted in order to minimize the time consumed in travel by the Labmobile. The double period also possesses merit for other obvious reasons.

The single most important factor was the distance between any two schools being served on the same day. It was most desirable to keep the noon-time travel to a minimum. That way the instructor could have lunch!

Several other scheduling problems had to be dealt with, including unavoidable irregularities. For this reason, the unit was limited to 18 schools permitting one unscheduled day in each two-week cycle. The extra day could then be used to make up labs missed by schools because of legal holidays and the like. Irregularities plague the fall semester more than the spring. A second possibility of adjustment was provided by planning the work of each semester around eight double laboratory periods instead of nine. The first semester schedule worked out in fine shape for all schools in the program, despite a sizeable flu epidemic which closed several schools for one or more days.

Instruction and grading

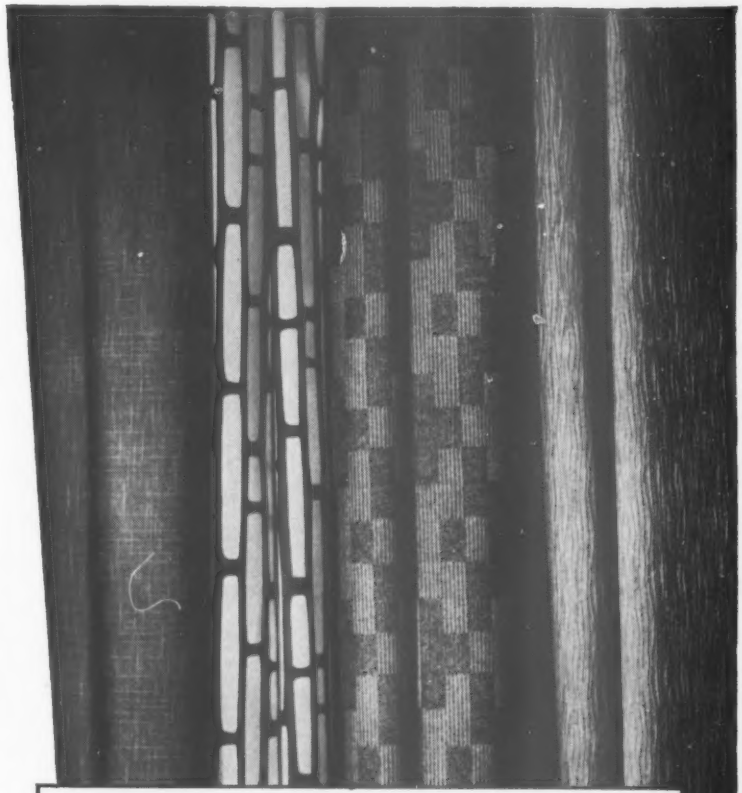
From the standpoint of instruction, the 18 schools may be grouped into three categories:

1. *Those schools with a chemistry teacher and some laboratory facilities.*
2. *Those schools with a chemistry teacher but with very few if any laboratory facilities.*
3. *Those schools without a chemistry teacher and usually without even the most basic laboratory equipment.*

The first two categories presented fewest problems. Theory sessions are conducted by the local teacher with a double period for laboratory every two weeks. Most of these "qualified" chemistry teachers have never taught chemistry before but are working in harmony with the laboratory instructor. The final outcome is more doubtful in

Decorate your classrooms with darkening drapes of TONTINE®

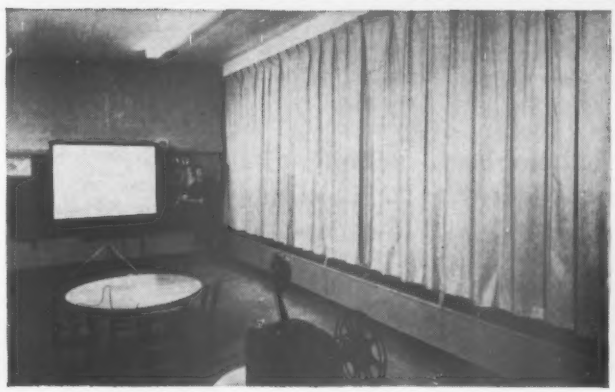
flame-resistant vinyl drapery material



Now, a double-duty drapery material that can decorate your classrooms with fashion-keyed colors and patterns, yet offers complete room darkening for audio-visual work. "Tontine" flame-resistant vinyl drapery material comes in a selection of attractive patterns, textures and colors on its interior side. Side facing window is neutral beige. "Tontine" is lightweight, soft and pliable—draws back gracefully when not in use. Draperies of "Tontine" won't fade, discolor, shrink or stretch—can be wiped clean quickly with soap and water. "Tontine" remains permanently flame-resistant...no re-treating necessary.

Where drapes are impractical, you can effectively darken rooms with Triplex "Tontine" window shade cloth or rugged, long-wearing coated canvas.

For free sample swatches and complete information on "Tontine" drapery or window shade material, mail the coupon or write: E. I. du Pont de Nemours & Co. (Inc.), Fabrics Division SM-85, Wilmington 98, Delaware.



Room darkening draperies of "Tontine" hang gracefully over large expanses. In attractive colors and patterns they contribute cheerful good looks to your classrooms. Draperies of "Tontine" offer long maintenance-free service—resist rough handling, fading, discoloration, shrinking or stretching. Mail coupon for free sample swatches and complete specifications.

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Please send free swatches and complete data on : ☐ Drapery material; ☐ Triplex window shade cloth; ☐ Coated canvas window shade cloth.

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(For more information, see last page)

those schools without a chemistry teacher. This is especially true in one or two schools where the local teacher in charge does not hold regular theory sessions with the students.

Assignments and study helps are provided by the syllabus, and the students in these cases are expected to learn the theory on their own in true correspondence fashion, or with no more than study hall supervision. Although a few students are doing remarkably well under this plan, others are not achieving as much as desired.

Tests and keys have been provided to accompany each unit of work. Students in those schools that are approved for chemistry by the state department of education will receive residence credit as awarded by the local teacher. Students in schools without an approved chemistry teacher will receive correspondence credit through Oklahoma State University as agreed upon by the local teacher in charge and the Labmobile instructor.

The Labmobile in action

The laboratory is at the school on its regularly scheduled date by the time the students arrive in the morning. The instructor directs the removal of apparatus from the station wagon, into the classroom. Laboratory assistants have been designated for these chores as well as the distribution and collection of materials in the laboratory. They do this work in fine shape with a great deal of enthusiasm. The laboratory instructor may then proceed with some preliminary discussion and/or demonstrations before the students get on with their individual experiments, but there is student participation during each laboratory session. At the close of the period the students reload the station wagon and the instructor is ready to keep his afternoon appointment at the next school.

Cost of the program

The following approximate figures of cost are given here only to convey a general idea of magnitude for the total project and are not intended to be specific or exact. In fact, the total cost can not be accurately determined until after a post-inventory at the close of the school year.

Station wagon	$ 2,000
Gas, oil & auto services	600
Laboratory apparatus & supplies	2,500
Multilith paper and services	100
Secretarial help & office supplies	250
Postage	25
Salary of instructor	6,000
Total cash investment	**$11,475**

From this total one may deduct $5,400 which is the amount to be paid by the 18 participating schools at $300 per school. Also the value of the station wagon at the end of the year should be roughly $1,500 and the laboratory apparatus and supplies will be worth about $1,500. This leaves an approximate net cost to the university of $3,075.

Evaluation of effectiveness

A comprehensive evaluation of the effectiveness of the project is underway. Students in the program were given a science aptitude test at the beginning of the school year and they will take a chemistry achievement test at the close of the second semester. These same tests are being given to a control group from schools not in the program. Results of the initial aptitude test indicated that we are working with students whose abilities in science are comparable to those taking chemistry in other schools.

A systematic collection of opinions from students, teachers, superintendents and the Labmobile instructor is underway. Results to date from all sources are highly favorable. A rating scale is being used of five through one, with five meaning very good or very high and one meaning very poor or very low. A summary of the ratings for all questions by superintendents, teachers and students is as follows:

Superintendents 4.27
(16 of 18 reporting)
Teachers 4.51
(17 of 18 reporting)
Students 4.13
(141 of 278 reporting)

The students rated the library feature of the project very low, indicating that they were not reading the books provided. It may be concluded that this feature has been of very little benefit this year.

Results firmly indicate that this method may be used successfully to expand or strengthen high school science curricula. It can be put on a self-supporting basis but should not be considered as a permanent arrangement in any given group of schools. The greatest good from this program will come from up-grading science teachers, through inspiration and example, rather than from the actual instruction given the students. This year the Labmobile is working with high schools varying in size from three to 24 teachers. In general, we are more impressed with results in the larger schools than in the extremely small ones. This may indicate that the program has more potential as a medium of enrichment rather than as an integral part of the course essentials. **End**

Televised Courses

Fifty school systems in 50 Oklahoma towns are using school science telecourses now being offered by KETA-TV in cooperation with the Oklahoma City public schools.

TV courses in chemistry, physics, algebra, trigonometry and geology are being followed regularly by over 400 students. Classes range in size from one pupil to 15, with an average of about five to six in a class.

Conducted on a regular school year basis, each TV class is presented for 30 minutes, five times a week. Most of the teachers have been with the TV teaching experiment since its inception two years ago.

School administrators have judged the courses excellent and welcome them as a most useful resource for in-service training for teachers.

Studies are now underway to compare test scores of TV pupils with pupils in regular classrooms taking the same course of study.

HOW TO STOP SCHOOL VANDALISM

Hardly a public school in the US can escape being a target for vandals, unless something is done to prevent it. Here is a survey of a variety of efforts made by the 22 Harris County, Tex. school districts. Their experience can help you stop vandalism.

■ ■ ■ Three small fires were burning brightly on the floors of as many classrooms in a suburban school in Harris County, Tex., one night recently when a custodian arrived to open the building for a meeting of a local civic group.

"If I hadn't come back for the meeting," he said later, "the school could have burned to the ground. Those fires were set by children in the neighborhood."

Nobody knows, exactly, how much damage vandals inflict on US public schools in any one year. The fact is, however, that vandalism is one of education's nagging problems, although it may not arouse the same degree of concern in every school district.

Vandalism—the malicious destruction of property—ranges in severity from smearing ink over books and papers, or carving initials in desk tops, to burning down the school. Between these extremes windows are smashed and lootless burglaries messily committed.

The 22 school districts of Harris County—population 1.1 million, with more than 200,000 youngsters in school—have no unified approach to vandalism. Since the problem varies in individual districts, so has each district's attack varied.

One common conclusion, however, appears to emerge. You can reduce vandalism by reducing the opportunities for it both from the standpoint of the school and the vandal. Some districts have been able to occupy the idle hours of youth with community-sponsored recreation programs, and others have supplemented this by increasing the protection of the school itself.

Most of the measures have proven successful and they offer a guide to any community struggling with the problem of vandalism.

In Hunter's Creek Village, Vic Parker, former town marshal, put a stop to youngsters' practice of shooting out school windows by organizing a gun club. He taught boys how to shoot and gave them a place in which to do it.

Some schools turned to student activities; others to all-night janitors

Harris County's programs frequently were carried out through the combined efforts of school boards and administrators, the PTA, civic officials, police chiefs, and individual parents and their children.

In Pasadena, Tex., the school board and administration discovered that vandalism was being committed by older children riding around in cars during the evening.

District Superintendent V. W. Miller assigned custodians to new hours. They began doing their janitorial work between 3 P.M. and 11 P.M. Some Pasadena principals even scheduled the cleanup work among several janitors so that it continued right around the clock. Custodial workers have instructions not to hurry. They leave the lights on in many rooms while they are working. Reports of vandalism in the Pasadena schools have decreased, officials said since the district inaugurated the "night shifts" four years ago.

All-night janitors

A disastrous fire in 1955 at C. E. King High School cost the Sheldon school district $106,000. Now the custodians live on the elementary school and high school grounds. They work at night—all night. Superintendent M. J. Fields says there is no vandalism at his schools nowadays.

In the Houston school district, however, the board of education rejected a proposal to put on a night-long shift of janitors to protect the schools from vandals. Reason: Annual cost of the night shift far exceeded the damage done by vandals in any previous year. The Houston district operates more than 150 schools.

The Galena Park school district has found one partial answer, reports Superintendent W. C. Cunningham. A student found guilty of vandalism is expelled from school until his parents pay for the damage he inflicted.

W. E. Moreland, recently retired as superintendent of the Houston district, recommends the use of visiting teachers and school counselors in investigating vandalism cases. This, he said, often leads to corrective guidance and training adjustments which can discourage a student from future acts.

Hunter's Creek Village, one of six suburban areas served by the Spring Branch school district, launched a shooting club under the guidance of Vic Parker, former town marshal, who taught boys the safe use of weapons. The result was a sharp drop in small-caliber shooting which in the past had taken a heavy toll in school windows, not to mention road signs and telephone pole insulators.

A Thanksgiving Eve fire in 1954 destroyed the high school in the Aldine district. It was an expensive loss, for the overcrowded district was short of building space and had little enough money for needed construction.

The district diverted part of its budget to security measures. Chain link fences were put up around the grounds, and the then superintendent, H. J. Elsik put watchmen on duty at some of the schools at night. This successfully reduced vandalism.

At Jacinto City, in the Galena Park school district, police "suggested" to any youth on the streets after midnight that he go directly home. Ordinarily the boy accepted the suggestion, says Assistant Police Chief Joe Daniels. If he didn't he was usually spotted again within a few minutes. And the second time police "saw to it" that the youth went home.

Other remedies

Besides direct action which school officials can take, there are a number of projects sponsored by others which they can support, even indirectly, from the top level of school administration. This frequently stimulates parents, civic and city officials to continue projects which result in eliminating or reducing opportunities for young people to damage property. Often, it's just a matter of occupying the time of young people—not merely to "keep them busy," but to satisfy various drives within them that will otherwise break out in vandalism.

Whatever the program, the important fact apparently is to avoid associating it in the minds of youngsters with juvenile delinquency prevention. A number of school officials also recommend that civil authorities and parent groups stop thinking about extra-curricular school activities in terms of "combatting delinquency." Not all teenagers, they point out, are potential vandals and any program which operates on this premise may well be doomed to failure; even if it is something young people ordinarily enjoy.

In the town of Green's Bayou, for example, a group of parents built, equipped and staffed a recreation center known as the Hornet's Nest. The feeling grew among the young people, however, that the center had been designed specifically to combat delinquency. Within a few short months it was abandoned.

The fact is, say some Harris County educators, community-sponsored events and facilities are, or should be, a normal growth experience for all young people, not merely therapy for budding troublemakers.

Varied activities

Several types of activities have proven highly successful in discouraging vandalism. School property is used to promote the programs. In Spring Branch, square dancing is popular among students from the fourth grade on up and several elementary schools offer free lessons in the school gymnasium one afternoon each week.

In the Cypress-Fairbanks district, a rural area, school-age youngsters take part in a livestock raising project *conducted on school property*. During the summer months, when school is not in session, the animals are used in a student-operated rodeo that draws some 2,000 paying spectators every Friday night. Thus, school property is treated with more than average respect and concern. **End**

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1. Unique Memory Monitor "remembers" program being sent to each room—eliminates confusion in communicating with classrooms.

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(For more information, see last page)

A monthly review of ideas, new products and helpful hints

School physician says mass exams dangerous

Dr. William Askue, instructor at Albany, N. Y., Medical College and physician for the Kingston, N. Y., schools, says that the present system of examining school children actually jeopardizes a child's health.

Dr. Askue recommended instead that youngsters receive a thorough physical examination every three years, given by their own family physician in the presence of the parents.

The present system of examination, "where more than 60 boys and girls are checked over within a few hours, is not satisfactory," he said. "Although they are only screening tests, many parents regard them as complete medical examinations and the child's health is placed in jeopardy."

High school sells itself to colleges

Instead of waiting for colleges to inquire about its educational system, the board of education of Roslyn, N. Y., has mailed copies of a comprehensive brochure to all major U. S. colleges to which Roslyn high school graduates are likely to apply for admission.

The brochure outlines the type of student produced by Roslyn, the caliber of the teaching staff, the curriculum, the guidance program, and the nature of the community itself.

The booklet, entitled "The Roslyn Story," was the outgrowth of a questionnaire sent by the school to colleges asking what they considered the most important qualifications for admission.

Mothers take over to give teacher a rest

Mothers of students at Detroit's Fitzgerald School have banded together to supervise youngsters during the noon hour so teachers can have a chance to relax. The project was launched through the school PTA in response to a plea from Principal Vera D. McEwen who pointed out that lunchtime duties have long been a burden to teachers who really need the time to rest in preparation for afternoon classes.

Some 50 mothers, including a few grandmothers, take part in the project, alternating supervisory duties in the lunchroom at noon. The plan is still in the experimental stage, says Mrs. McEwen, "but so far it appears to be a success."

Duties of lunchroom supervision were first explained to participating mothers by Winning S. Pendergast, lunchroom and budget supervisor for the Detroit schools. They also attended a two-week class on nutrition and diets, with special attention to such problems as encouraging the food-fussy child to eat.

The program was established after the Michigan Legislature failed to take action on a bill which would have given teachers a 45-minute lunch period free from school responsibility.

Mrs. McEwen says the mothers have greatly improved teacher morale by their efforts "which show that mothers are appreciative of what the teacher is trying to do."

Causes, sources of school fires told

Defective wiring is the most common cause of school fires, according to a survey of 300 fires which occurred in the US over the past 50 years, made by the National Fire Protection Association.

Electrical defects accounted for 35% of the fires, with 30% due to overloaded or short circuit wiring. Defective installation of heating equipment was blamed for 18% of the fires, while 18% were attributed to incendiary causes. Smoking and matches accounted for 12%, rags and mops 5%, gas explosions 3%, and children playing with matches only 1%.

Fires can start almost anywhere, the survey showed, although 48 of the 300 fires began in classrooms. Uninhabited rooms were the source of 41 fires, 30 began in furnace rooms, 28 in storage rooms, 20 in auditoriums, with the remainder in a variety of places.

Copies of the complete report, which also lists fatal school fires and those of heavy loss, can be obtained at 50 cents each from the National Fire Protection Association.

Teachers deride non-teaching duties

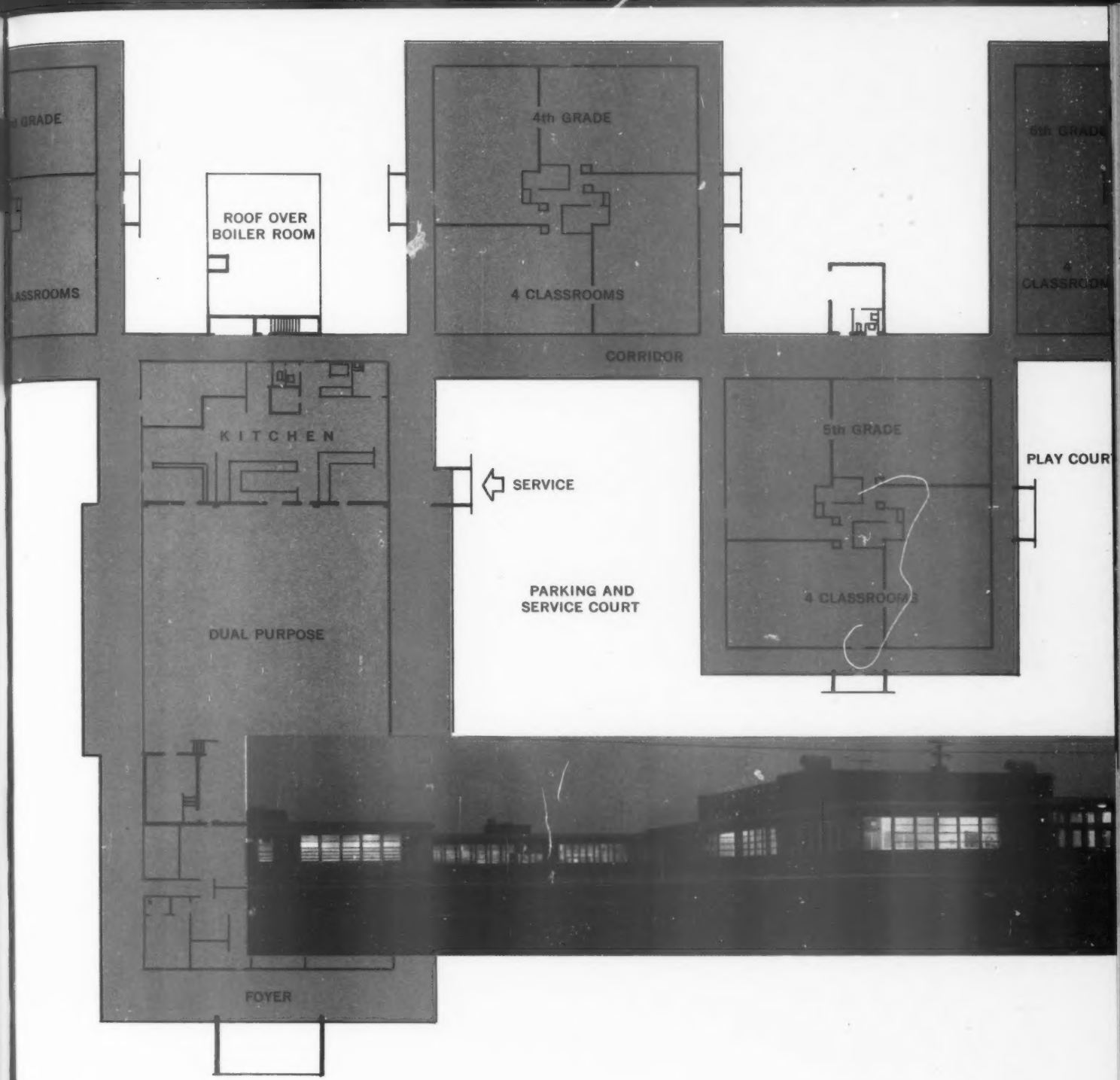
Teachers have so many other things to do, their students are being deprived of instruction. This was the concensus of opinion expressed by 500 members of the New York City Teachers Guild attending the guild's spring conference. Burdened with clerical work, yard duty, lunch chores, collections and assorted jobs, the teachers said, the student is not getting full value from them. The complaints were presented to New York's deputy mayor, John J. Theobald, who becomes superintendent of schools next September.

Workshop planned on merit pay for teachers

A workshop designed to examine the question of merit salary schedules for teachers for the benefit of school administrators and members of boards of educations will be held July 7-11 at Syracuse University, in Syracuse, N. Y. It will be directed by Dr. Virgil M. Rogers, dean of the university's school of education, with the help of a panel of expert consultants.

The purpose of the workshop, the university announced, is not to attempt to settle the issue, which now confronts a number of school systems, but to examine it as thoroughly as possible by reviewing all available research, and exchanging experiences and opinions. The consultants will include Dr. Arvid Burke, research director for the New York State Teachers Association; Dr. William Gragg, Ithaca school superintendent; Gale Rose, research director for the Utah School Merit Study Committee, and David C. Guhl, past president of the NEA Department of Classroom Teachers.

Additional information about the workshop may be obtained by circling number 780 on the Reader Service Card.



An on-the-spot L·O·F Investigation of a

School designed for separation of **Age Groups**

How can you put 800 kids (from 1st through 6th grades) under one roof and give each age group a "private school" atmosphere on a building budget of only $570,000?

Architects Zeller and Hunter of Springfield, Ohio, accomplished just that for the new 45,180 sq. ft. Northwestern Elementary School in the same city. Cost: only $12.41 per sq. ft. (other new schools in the area averaged from $12.50 to $15 per sq. ft.).

L·O·F men went to Springfield to find out from the people who are an every-day part of the school, how its unique design is working out.

Here is what they told us:

L·O·F GLASS

Children are routed from classroom units to the auditorium-cafeteria through corridors of glass. When used for civic functions, the public enters from the street through the school's main entrance.

R. O. BRINKMAN
Executive Head
Northwestern Local Schools

"The layout is wonderful! The six, four-classroom units are placed like checkerboard squares, radiating from a central administration-auditorium and cafeteria core. Each age group has a unit. Each unit has its own identifying exterior color styling, its own toilet facilities and its own playground. So first graders, for example, are never thrown with the bigger, more boisterous, children. And the sixth graders never have the small ones underfoot.

"Each unit is surrounded by a glass-walled corridor, six feet wide, connected to the next unit at a corner. At mealtime, and for assemblies, each group of pupils files through the corridors into the dual-purpose auditorium-cafeteria. There are no crosscurrents of traffic, no congestion.

"The school was designed for an enrollment of 720. We already have 800, and the plan still works. If our enrollment grows any more, we'll expand by adding more classroom units—with this layout it will be easy enough to do, and we have 20 acres.

"If you want to know about the practical workings of the building, I suggest you talk to our Principal, Mr. Northup."

LOF GLASS

L. W. NORTHUP
Principal

"After 34 years as a teacher, I was frankly dubious about the design of the school. I thought the children would be distracted by people walking through those glass-walled halls. But the teachers tell me that the children adjusted rapidly. They now pay no attention to corridor activity.

"I was also concerned for their comfort, but the halls are like double-glazing with a 6-foot air space. And the baseboard heating is marvelous. One day last winter it was 8° above zero outdoors and a high wind was blowing, yet it was 71° in the corridors and 73° in the classrooms.

"The units are comfortable in warm weather, too. The roof of the corridor functions as an overhang to keep the hot sun rays out of the classrooms. And both classrooms and corridors have windows that open, so each room has cross-ventilation. On still days, we can turn on the heating system blowers.

"But why not get a teacher's reaction to our school. I'd suggest you talk to Mrs. Geeting."

Daylight floods each classroom from two sides. The children are comfortable, year 'round, insulated by the corridors which surround them.

MRS. MARY C. GEETING
Sixth-Grade Teacher

Daylight walled corridors of L·O·F Glass surround each building unit, and are interconnected, unit to unit.

"It's like being released from prison. I taught in the same room at the old school for 26 years. It was dark and dingy—and often cold. The children were hard to organize, and discipline was a problem.

"Here, the daylight surrounds us and you feel almost like you're outdoors. The children never complain that they can't see, and I haven't had a single complaint about headaches. I feel less tired, myself, at the end of the day.

"We call the *corridor* our 'sun porch'. And it makes it so easy to get outside at recess. It's also a sort of *mud room* where snow and dirt is stomped off—so it doesn't get tracked into the classroom.

"Of course, you've noticed our old-fashioned desks. But that's only temporary. We've been promised new equipment when delayed funds become available. Despite the old desks, children take a lot of pride in their own particular units. They even wash their own classroom windows and boast that 'our windows are cleaner than yours'.

"To sum it all up, you have my permission to say—for all the teachers and all the kids—we wouldn't trade our new school for any other, anywhere."

L O F GLASS

a Great Name in glass

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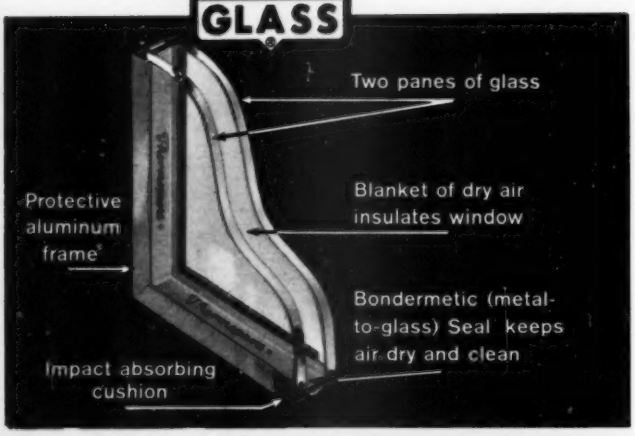
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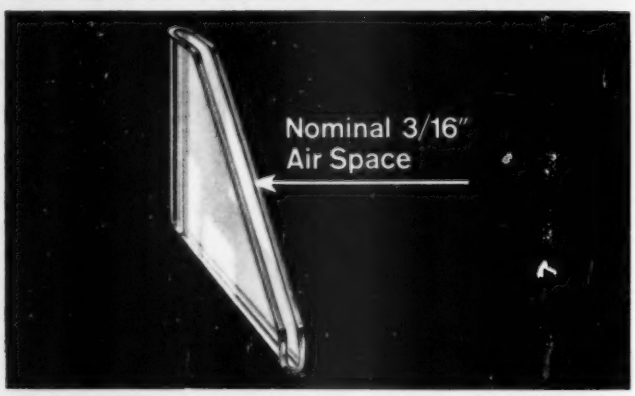
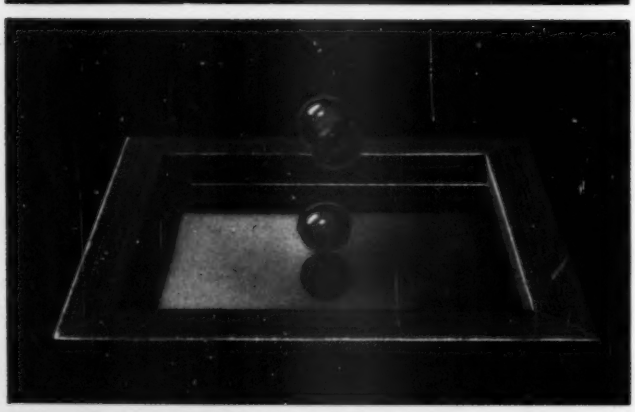


Thermopane is now available in two new, improved types: *Bondermetic Thermopane* (left, above) with the famous metal-to-glass seal now has its edges protected with an aluminum frame. *GlasSeal® Thermopane* (left, below) sets new quality standards for all-glass insulating units. Made of DSA sheet glass, its uniformly rounded, smooth edges make glazing easier and faster. Ideal for both wood and metal sash.



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VITROLUX® Used instead of masonry as an exterior facing material, also for interior partitions. Rich color, fused to the back of this clear, heat-strengthened plate glass, adds youthful beauty and cheerful character to your school. Natural resistance to weathering, crazing and checking. Standard maximum size of *Vitrolux* panels is 48" x 84". Special orders up to 60" x 84". Thickness: ¼" plus $\frac{1}{64}$" minus $\frac{1}{32}$". Sixteen standard colors plus black and white. Also in nonstandard colors subject to manufacturing limitations.

S-801

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SPRING & SUMMER

Care of your school grounds

"Don't keep off the grass," is the new policy in most schools. Here's how to keep both grass and children growing — now that the warmer months have come.

By J. W. GATES

Business Manager, Edgemont schools, Scarsdale, N. Y.

Our school district includes three school sites, involving a total of 96 acres of which about half are given over to lawns and athletic fields. For outside maintenance, we employ two men full-time and a third for eight months of the year. Their responsibilities cover: tree pruning and spraying, care of shrubbery and flowers, care of six tennis courts, baseball diamonds, football field and track, and the complete care of the lawns.

No "keep off" signs

It is administration policy to encourage the students to use the lawns. There are no "Keep Off The Grass" signs. Because there is adequate lawn acreage around each school and because the children's activities are not confined to particular areas, the problem of wearing out the grass completely has been greatly reduced. In fact, we find that students gravitate to good turf areas, permitting worn areas often to recover without reseeding.

Seeding has been reduced to a minimum, although spot seeding is required for the football field and areas subjected to very heavy traffic. Seeding as required must usually be done in the summer. We use a mixture of Merion Blue, Kentucky Blue, Penn State C.R. Fescue and perennial ryegrass. Usually, the areas to be seeded require light top dressing, lime and fertilizer. The field is then watered until a good growth is established. The watering is accomplished with the use of a traveling sprinkler that requires only one setting each day. It takes three days to water an area the size of a football field.

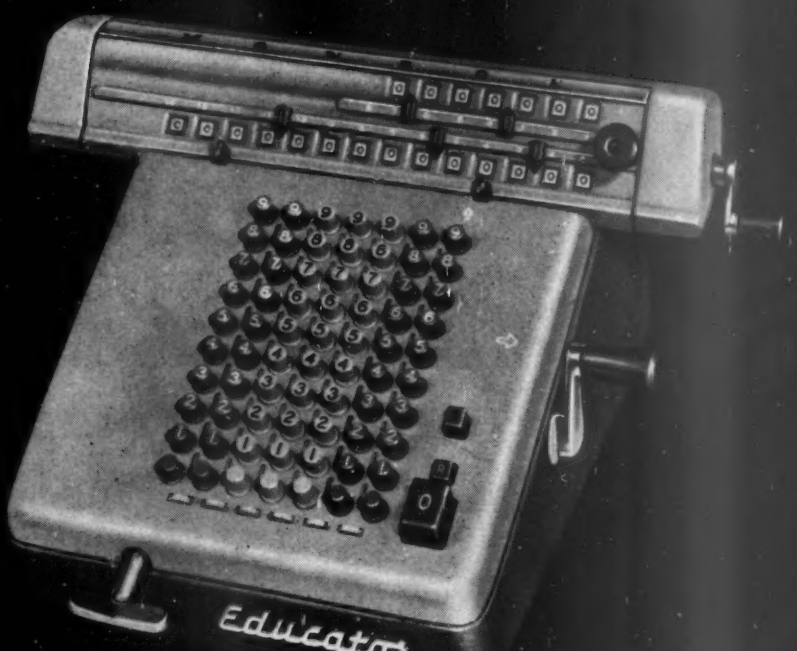
The role of proper equipment

There can be no doubt that the use of good equipment—with the right capacity and the right design

For today's crisis in Science

...an ADVANCED

method of teaching arithmetic



Why do so many children dislike arithmetic? Why is it that many really good students depart from school ill-equipped to meet the demands of our scientific society? Considering questions such as these, the Monroe Calculating Machine Company has developed a new, advanced approach to the teaching of arithmetic. Based on the studies of Dr. Howard F. Fehr, Head of the Department of Teaching of Mathematics, Teachers' College, Columbia University, the techniques involve the use of classroom calculators. Results have shown that calculator-assisted classes are more proficient, comprehend more and, perhaps most important of all, enjoy arithmetic more. The nature and philosophy of calculator teaching are clearly stated in Monroe's new booklet: "Arithmetic Minus Mystery Equals Understanding." For a competent understanding of the problems of arithmetic teaching, send for your free copy today: Educational Department, Monroe Calculating Machine Company, Orange, New Jersey.

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DATA PROCESSING MACHINES

(For more information, see last page)

for the job—is a necessity in the establishment of good turf. It has also been our experience that proper equipment boosts the morale of the men: they pride themselves on doing a good job quickly and they have a greater interest in learning the proper care of lawns. The cost of labor to care for large areas without proper equipment would be prohibitive. We are convinced that the original cost and upkeep of adequate power equipment is of minor consideration compared to labor costs.

We use two "three-gang" tractor-driven mowing units to cut grass in large open areas. We have a three-gang self-propelled mower, with reverse, for cutting areas too confined for efficient use of the tractor. Trimming around buildings and shrubbery is done with a 10-in. gasoline-driven rotary mower. Steep banks and rough areas are cut three or four times a year with a 24-in. rotary cutter. This same unit is equipped with a leaf mulcher which has made obsolete the job of raking leaves in the fall.

Mowing practices

Our grass is usually cut once a week. However, variations in weather may affect this schedule. In the spring and until school is out in June, mowers are adjusted to cut at a height of about 1¼ inches. This same adjustment is also used in the fall.

In the summer, when the weather is dry and the growth inclined to be dormant, the adjustment is raised to two or two and one-half inches. This seems to be the most effective height to retard the growth of weeds and crab grass. However, we are careful that all areas are cut before the grass goes to seed.

Some of our athletic fields are seeded rather heavily with Merion Blue grass which seems to go to seed before attaining much height. It does, however, appear to resist the dry weather much better than other areas seeded with a mixture of Kentucky Blue and Fescues. (*See box right*).

Fertilizer

The lawns are fertilized in March with a 12-12-12 complete

SELECTING THE RIGHT GRASS

Editor's Note: Because the kind of grass to be planted will vary from one part of the country to another, we asked John C. Harper, senior agronomist for the Toro Manufacturing Co., to prepare the following guide. Here's what he recommends:

Healthy turf cover is dependent upon the selection of the proper grass or grasses which, in turn, should be determined by climate and use. Grasses vary greatly in their nutritional and moisture requirements, their growth and their need for supplementary maintenance such as weed, disease and insect control.

Turf grasses are divided, chiefly on climatic adaptation, into two broad groups. Cool-season grasses are those which make their maximum growth during the cool months of spring and fall, becoming dormant or semi-dormant during hot weather. These grasses are confined largely to the northern half of the United States as a year-round grass and to the South as a temporary winter grass. Examples are bluegrass, bentgrass, fescues and ryegrass.

Warm-season grasses make their optimum growth during the hot summer months and fall dormant during late fall, winter and early spring. Their practical use is confined to those sections of the country having hot summers and very mild winters. They include Bermudagrass, zoysia, centipede, St. Augustinegrass and carpetgrass.

It is important to remember that many sections of the country have small localized areas where a grass not normally adapted to that general area will grow successfully.

When the use aspect is also considered, the choice of cool-season grasses satisfactory for school grounds is reduced to Kentucky bluegrass and the fescues. On general school grounds, Kentucky bluegrass alone or a mixture of Kentucky bluegrass and red fescue (60-40 or 70-30) provides excellent cover. On athletic fields and hard-use areas, a seeding of tall fescue (Alta or Kentucky 31) and Kentucky bluegrass furnish tough wear-resistant turf. In areas particularly suited to bluegrass, straight seeding of Kentucky bluegrass or a mixture of 50% Kentucky bluegrass and 50% Merion bluegrass is proper. Under no conditions should bentgrass be included in school ground or athletic field seeding.

In the warm-season grass region, Bermudagrass is the first choice for grounds, playground and athletic field use. Its toughness, rapid growth and ability to recover quickly from damage and adverse weather conditions make it an excellent selection. Its chief disadvantage is its tendency, in much of this region, to go dormant during part of the school term. In these areas, it is recommended that Bermudagrass be overseeded with ryegrass during the winter season, to provide growing turf for play and to protect the dormant Bermudagrass from excessive wear.

All grasses should receive a complete fertilizer (containing nitrogen, phosphorus and potash) at least once and preferably twice a year. Both cool-season and warm-season grasses will require additional applications of organic nitrogen: cool-season grasses in the late spring; warm-season grasses and particularly Bermudagrass, from three to five supplementary applications.

Today's institutional-type power mowers, like one shown above, are built to operate for many consecutive hours. The 7-inch diameter reel assures clean mowing in tall undergrowth.

fertilizer, at 500 pounds to the acre. We apply this with a five-foot spreader pulled by a tractor. This first application is followed up about one month later with an organic fertilizer, such as Milorganite, at the rate of 600 to 800 pounds per acre. Every effort is made to establish an early growth of grass in order that it may better withstand the traffic. The football field is fertilized again, using an organic fertilizer, twice during the summer at a rate of about 400 pounds to the acre.

Liming is done on the basis of quantities recommended as the result of soil tests.

Rolling and aeration

The lawns are rolled as soon as the ground is sufficiently firm to support a tractor, once the frost is out. A three-gang water-weighted roller is used, with the rollers not more than half filled. This presses firmly in contact with the ground those roots that may have broken off during the winter.

During the month of April, all turf is aerified with an eight-foot aerator pulled by the tractor. Aeration is repeated again during the latter part of September. This treatment has been extremely beneficial in offsetting compaction of the soil due to constant usage.

Weed and insect control

We have spot-treated the lawns to control weeds and crab grass and have found that treatment is necessary less frequently as the lawns attain a vigorous growth. Di-Sodium Monomethol Arsonate, hydrated, applied at the rate of one gallon per acre for crab grass, and 2-4-D, applied at the rate of one quart per acre for control of broadleaf weeds, have proved very effective. It has been our experience that most of the work and money put into preparing and maintaining lawns will be wasted without good control of crab grass and other weeds. It is amazing to see the good grasses develop and spread when they do not have to compete for food and moisture with undesirable growth.

Liquid chemicals are applied to the lawns by means of a 200-gal. pressure sprayer with a 21-ft. boom. This sprayer has a small motor and pump unit, operated independently of the tractor. It is well to note that sprayers used with 2-4-D should not be used to spray trees and shrubs, unless they have been thoroughly cleaned.

Treatment of lawns for grubs consists of mixing 50 percent Chlorodane powder, at the rate of 20 pounds per acre, with the organic fertilizer. We have treated small areas, at ten pounds per acre, for chinch bugs. However, the treatment may have to be repeated within a month.

Our cost per acre, for the yearly care of lawns approximate $65 for athletic fields and $45 for all other areas, for materials only. Areas that are not cut with reel-type mowers are not fertilized. **End**

PROPER MOWING TECHNIQUES

Poor mowing practices destroy the beauty of a turf area and may even seriously damage or kill the grasses. Dull blades or reels tear or bruise the grass blades, resulting in off-color leaves, a ragged cut and opening the way to disease and insect invasion. The importance of sharp, properly adjusted mowing equipment cannot be over-emphasized. Bluegrass and bluegrass-red fescue mixtures do best if cut at a clipping height of approximately 1½ inches throughout the growing season.

For areas seeded with tall fescue, the height should be raised to two inches. Bermuda grass will perform most satisfactorily at lower clipping heights: ½ to ¾ inch.

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(For more information, see last page)

an S/M *reader writes*

Is it wise to buy supplies locally?

An array of typical supply items, used by the Marietta schools, now subject to competitive bids on price.

By DR. GLENN C. PARKER

Superintendent of schools, Marietta, O.

Here's how the Marietta schools put their supply purchasing on a "no politics" basis — and saved money

■ ■ ■ Every school district must contend with the problem of *where* and *how* to purchase supplies. The nature of the items—inexpensive in themselves but costly in a cumulative sense—dictates that the superintendent and his staff should control the purchasing. But the question of *where* to buy is a matter for school board policy.

In April of 1956, our school board faced up to this problem and decided to establish, once and for all, *who* should purchase, and *where* orders should be placed. The real problem was "where". Our choice was one of buying locally or from out-of-town suppliers. In either case, the board had to decide on what basis we would select the firms with which we would deal. It was generally agreed that we should establish some criterion other than friendship of a salesman with the purchasing agent, a school board member, or the superintendent. The administration was instructed to purchase all future supplies on the basis of *price alone,* but with due regard for quality. The board told us to implement this decision.

Our first step was to list all supplies needed in alphabetical order. We then determined the amount, or quantity, of the items needed. The entire list contained 140 different items of supply. This list was sent to as many different supply houses as we could find, including our local firms. Twenty-seven companies returned quotations.

The variations in prices quoted for the same item amazed us, although we anticipated some discrepancies. Here, for example, are some of the varying quotations for typical items on the list (notice the amazing spread between the top and bottom price for exactly the same item, usually of the same brand):

Duplicating Master Set, (all of same brand), 8½x11, (box 100) 120 boxes needed: $272.34, $285.60, $301.38, $331.50, $397.80, $408.00, $428.00, and $529.38.

File Folders, 1000, 1/5 cut Man. 8½x11: $14.50, $14.78, $15.44, $16.50, $16.62, $19.95, $21.36, and $22.50.

Carbon Paper, Black, Med. 8½x11, 11 boxes: $9.13, $9.90, $11.88, $16.50, $20.24, $22.00, $27.50, $34.98, and $38.50.

continued on page 60

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Mimeograph Paper, White, 8½x11, 16 lbs. 332 reams: $232.40, $235.05, $245.68, $262.28, $278.88, $292.16, $292.28, $315.40, $351.92.

Paper Clips, #1, (1-⅜) Box 100, 111 Boxes: $4.44, $4.55, $4.66, $5.55, $5.77, $6.66, $8.33, $8.33.

Paper, Oak Tag, pkg.-100, 9x12, 92 packages: $47.84, $49.22, $55.20, $57.04, $66.24, $80.96.

Paper, Typing, White, 16# 8½x11, G. Quality, 12 reams: $8.76, $8.82, $8.88, $11.16, $11.16, $11.40, $16.80, $19.92, $27.48.

Typewriter Ribbons, (same brand), 5 doz.: $21.50, $24.60, $28.75, $29.75, $29.90, $31.25, $31.25, $31.50, $31.75.

Staples, (same brand), B-8, 23 boxes: $32.89, $34.50, $35.42, $36.80, $40.71, $41.40, $42.55, $44.85, $46.00, $46.00, $49.45.

Quality must be considered

Although we had specified brand name or quality on many items, it was apparent from the spread in quotations that failure to specify quality on all items might have effected some bids. In these instances, we promptly asked for samples.

We made some mistakes by overemphasizing price. The first year we fouled up our liquid duplicating machine with inferior paper. Thereafter, we ordered a better quality. On the other hand, we also discovered that we didn't always need the best quality materials, and on the basis of tests were able to affect substantial savings.

We now order supplies once a year, in quantity lots, through competitive quotations. We have found that delivery can usually be spaced as desired, though we still enjoy the quantity price.

Most important, when local merchants approach us today concerning our supply purchases, we are able to show them our quotation figures and clearly demonstrate what we accomplish by purchasing in large quantities. As businessmen, they understand that kind of talk. One of our suppliers recently told us, "You'd be crazy to buy from me—I can't meet that price." In addition to this evidence, we also have the clearly defined school board policy which states, in writing, that we have no choice but to buy on competitive quotations. **End**

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aware of the fact that current decisions determine future operations. It has learned from hard experience that it must have long range, just, well thought through policies which the members individually understand and can defend, and which can easily be communicated to patrons and staff members.

The members know that the penalty for not having such policies is to have board meetings become a bargaining place between themselves and pressure groups. They have long since recognized that problems requiring policy cannot be identified, discussed, and acted upon at the same meeting.

The solution to this problem has been found in the form of an extremely complete agenda sent to every board member before every scheduled meeting. By thus briefing the members in advance, Covina has been able to handle some very complex problems quickly and efficiently with a sense of intelligence and security based on knowledge of every situation.

The board members have become more effective and, important to elective officials, they *appear* more effective, because of the agendas.

The purpose of an agenda

When the idea of building an agenda in advance of every meeting was first broached, it became necessary almost at once to define the purposes to be served. The following purposes were identified by the Covina board as being important and our agenda attempts to accomplish them:

1. To collect and transmit to the board members complete information on the items they will consider at the next meeting.

2. To give the members this information in sufficient time so that they may acquaint themselves with all the facts involved and, when necessary, can contact administrative officials for further information or clarification.

3. To give the members on a regular basis information they have requested or that the administration believes they should have.

4. To list for the members coming events about which they should be concerned.

5. To serve as a history of all regular and special meetings of the board.

What is contained

Our agenda is sent to each board member in a letter-size manila folder. It is divided into three sections: general information, action and background (*see illustration, right*).

The general information section: This is the section which achieves purposes three and four listed above. It includes attendance reports, convention reports by staff members, a listing of coming events and any other material which should be communicated to the board but which is of a nature that does not require its appearance in the official minutes of the board deliberations. This section of the agenda might be termed a newsletter which could be used for general communication. It is placed on the right hand side of the folder, with an index to the items contained.

The action section: This is placed directly on top of the general information section. This section contains a list of the items submitted for official consideration. It contains, in addition, the superintendent's recommendation on each item. It may request two types of consideration. It may have both items requiring action and items of information which require no action but merely request board consideration. The information contained in these items is of a nature which makes it desirable for it to appear in the official minutes of the board. This is in contrast with those items found in the general information section.

The action section is placed on the right hand side of the folder and is thus in a natural place to occasion the immediate attention of each member as he opens the folder at the start of the meeting.

The background section: This is bound to the left hand side of the folder. It contains complete facts and information regarding each item in the action section. These items are keyed together with a common symbol. Thus, the first item for consideration on the action side of the agenda will refer to "Reference A." *(See box, page 64.)* The information supporting that item in the background section will be identified by the symbol "Reference "A." The next action will be "Reference B," etc.

Developing the agenda

Many elements combine to make up the agenda of a single board meeting. Initial responsibility, of course, lies with the superintendent. But board members, other persons on the school administrative staff and members of the community-at-large all have a hand in determining what will be put on the agenda for a particular meeting.

Board members must have an opportunity to submit items for board consideration. This sounds like the most obvious statement in the world, but prior to the adoption of the agenda system, there was no systematic way in which a board member could place on the agenda items he wanted discussed.

Now, as a regular part of the agenda development, each member is contacted individually by a secretary who records what items, if any, he wants placed on the agenda and notes the background material available.

This step not only helps build a representative agenda, it eliminates the possibility of board members and patrons feeling that "all decisions are made by the superintendent and ratified by the board." The overall development of the agenda is a shared responsibility between the superintendent and the assistant superintendents who, in Covina, head the two service divisions—business services and educational services. The superintendent clears items submitted by the two assistants for inclusion. In addition, he has the responsibility for submitting those items that do not fall within the area of the two service divisions.

The actual agenda for a meeting is generally divided into five sections: preliminary, general functions, educational services, business services and "board presentation."

In the first section are noted such items as time and place of meeting, the roll call (quorum verification),

text continued on page 64

1. BACKGROUND

The background section contains the facts board members will need to act intelligently on any question. Since it is provided to them at least three days before the meeting, they have time to study the material presented, to ask questions of experts and to formulate opinions. This helps speed the meeting by cutting down on the presentation and questioning periods. Each item in the background section is keyed to an item on the agenda.

2. ACTION

The action section is basically the agenda for the meeting. It outlines the issues to be discussed that night and lists the superintendent's recommendations when pertinent. Space is provided on the action section for members to make notes and to record the results of voting. Thus it can become a permanent personal record for each board member. Cross references indicate points on which material is available in the background section.

3. INFORMATION

There is a great deal of information about a school system that is of interest to board members though they do not have to take any direct action on it. This material is included in the information section. Among the items covered at a recent meeting were reports from two conventions, student enrollments for the two weeks since the previous meeting and progress reports on teacher personnel employment for the next year.

COVINA SCHOOL DISTRICT AGENDA

For its Feb. 17, 1958 meeting, the members of the Covina board received an agenda containing 31 points. Twenty-five were explained by material in the information section. Included were the following items on books for libraries, next year's calendar and sale of school property.

ACTION

School Calendar—1958-59. Proposed calendar for the school year 1958-59 is submitted for approval. (Ref. C)

REFERENCE

explained why it is necessary to set the calendar as soon as possible and the thinking behind the proposed opening and closing dates. The superintendent recommended that Covina make its schedule conform as closely as possible to that of neighboring Los Angeles "because of the publicity they receive in metropolitan newspapers." A graphic presentation of all holidays, how many days would be taught each month and the total number of teaching days in the year, was also presented. **The calendar was accepted as presented.**

ACTION

Policy—school libraries. Proposed policy is submitted covering establishment and maintenance of school libraries. (Ref. E)

REFERENCE

summarized a survey of school library practices in the state showing that the superintendent's recommendations (four books per student in grades K-6, five books in grades seven and eight) were in line with standard practice in the area. It pointed out that due to the district's growth a total of almost 26,000 books is necessary immediately to meet this goal. The estimated cost of $57,000, the report stated, could be obtained within the present budget by making use of unused money allocated to other funds. **The board accepted the proposed policy as presented.**

ACTION

Sale of equipment Recommendation is presented that mimeograph machine be declared surplus and that it be sold. Ref. X)

REFERENCE

told history of five mimeograph machines purchased by the school system four years ago. Due to changes in school policy there is now need for one less machine in the Covina schools. The reference related a request from the city of Covina for permission to purchase one of the used machines for its recreation department. **The board agreed to sell the extra mimeograph at the price offered by the city.**

approval of the minutes of the previous meeting and questions from the floor. Here there is an opportunity for members of the audience to request to speak on any item on the agenda. If the item of concern is not on the agenda, he may speak for a limited time and request that the board place the item on the agenda of the next regular meeting. The board, as a matter of policy, will not consider an item that is not included on the agenda.

In the second section, General Functions, will be found items which deal with board functions, general district policies, and policies which govern the operation of the schools. This is generally prepared by the superintendent and is his responsibility. The educational services section is prepared by an assistant superintendent who depends upon his three department heads to develop agenda items for submission to him. These departments are curriculum services, pupil personnel services, and personnel services.

The business services section made up by the other assistant superintendents includes five areas: accounting, buildings and grounds, cafeteria, purchasing and warehousing, and transportation. Department heads, in charge of each, submit items to the assistant superintendent.

A good deal of in-service education has to take place if the department heads are to submit only those items which should be considered by the board and screen out those which should be administrative decisions. As a general pattern, we have said that the board should be concerned with *what, when* and *where,* and not *how*. The administration should be concerned with the *how*.

Following this general criteria, department heads know that they should always submit the following kinds of items for an agenda:

1. A request for policy or a request for clarification of existing policy.
2. The performance of functions which have been retained by the board and which have not been delegated. In California, the board cannot delegate such functions as purchasing, the employment and

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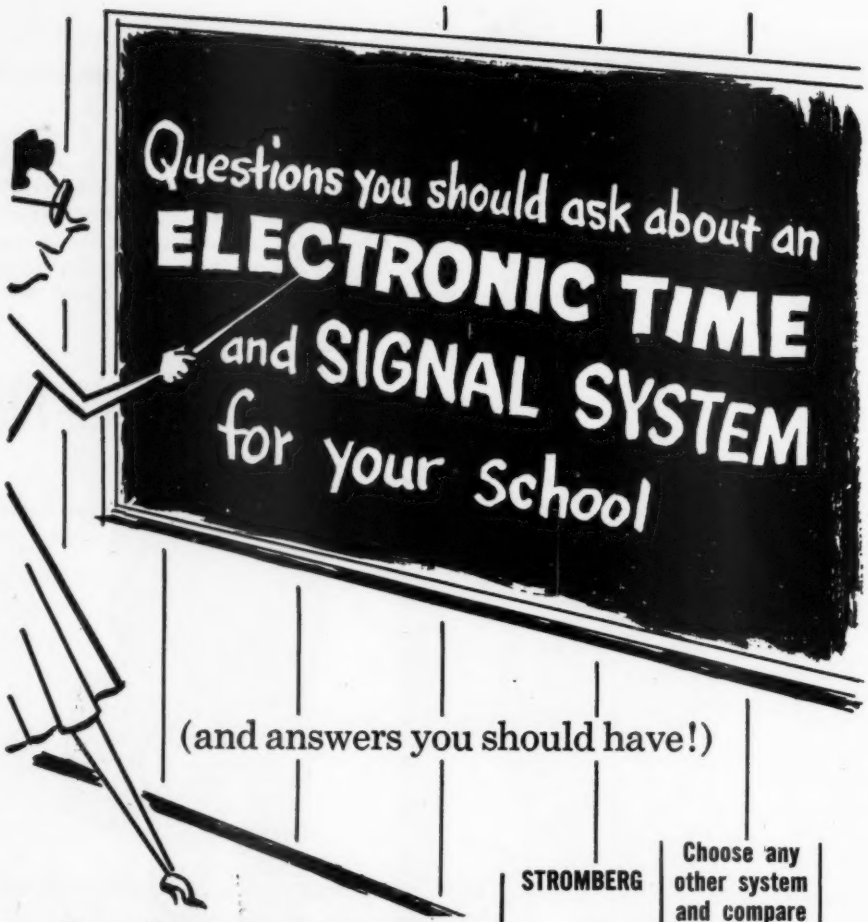

(and answers you should have!)

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(For more information, see last page)

dismissal of personnel, and other discretionary acts.

3. Progress reports on programs or projects which have been requested by the board; any other information which the department head feels the board should have to understand the operation of his department. We urge department heads to submit the item, when in doubt. The division head or superintendent will judge whether the item should or should not be included in the agenda.

In addition to these sections, the board has requested that the superintendent arrange for a presentation, in concentrated form, of information concerning some phase of district operation. Each board meeting has a significant portion of time designated for this activity. The results of a testing program, a detailed description of warehousing procedures and detailed description of the primary reading program are some items which have been considered in the past. The board determines a year ahead of time those items which they wish to have placed in this section of the agenda.

Timetables

Our board meets twice each month. Department heads submit items to their division heads a week ahead of the meeting date. These items include the action requested, as well as the background material and recommendation. The division head assumes responsibility for organizing his section of the agenda and presenting it to the superintendent for an agenda conference at least three days before distribution of the agenda to the board. This may be accomplished either face-to-face or by submitting the items in complete form with the understanding that if the superintendent has questions, he will refer them to the division heads for answer. At this point, it is well to have the person responsible for finally assembling the agenda alerted to certain things to watch for:

Is background material furnished for each item? Is the background material complete in itself, without requiring reference to other mate-

rial? Does it include the recommendation and reasons and/or justification for the recommendation? Are additional reports requested by the board at a previous meeting included?

After approval by the superintendent, the agenda is set up for publication and distribution. Distribution to the board is concurrent with or prior to distribution to other community agencies. We have found it wise to have board members receive the agenda by district messenger on the same day copies are *mailed* to newspapers and other persons who have requested them. That way we are assured that board members have the agenda in hand before any public reaction takes place. Further, if the schedule is correctly followed, they will have three days in which to review the agenda and clarify any points of question.

On the same day that the agenda is distributed to board members, the *action side* is distributed to local newspapers, each PTA unit president, and school education chairman, and to each principal and department head, for employes' information. Any other person in the community desiring to receive the agenda and approved minutes, may do so merely by requesting it. Periodically, we check with a double postcard to see whether current recipients of agenda and minutes desire this service continued. The mailing list is revised after each of these surveys.

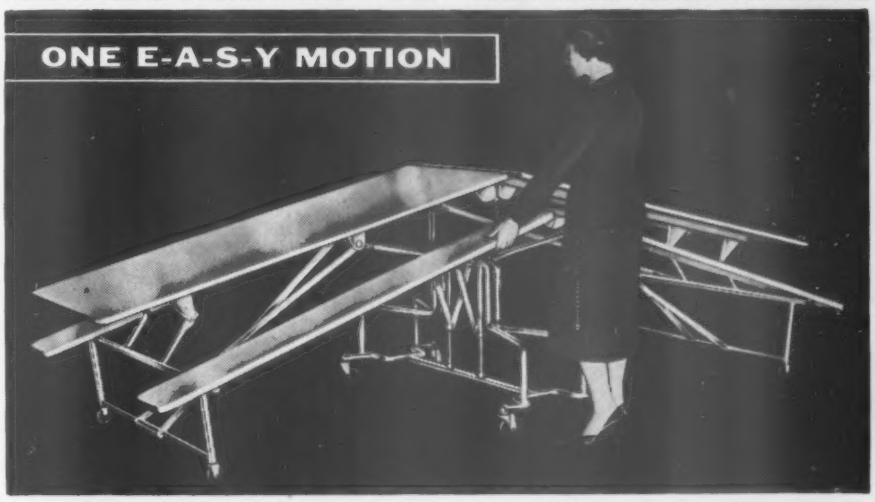
The use of the agenda

The use that the agenda is put to at the board meeting is the proof of the pudding. Board members who have carefully studied their agenda come to the meetings with those items about which they have questions noted. They have had time to secure additional information from the staff about any item on which they need further facts. Items about which no questions have been raised can be passed quickly. Background on items where there is a question can be clarified.

It is important that members of the audience understand that the board has received background information on action items and that it has had this information for a number of days. If the audience does not understand this fact, it is possible that it will draw the erroneous conclusion that the board is passing items without due consideration.

This type of agenda has been in use in our district for three years. There is universal satisfaction on the part of board members concerning this instrument. They frequently state that they feel a much greater sense of security in their deliberations than was ever possible under a less thorough type of agenda procedure. They take pride that in spite of the fact that the amount of business has increased tremendously, they know more about more phases of the district than ever before. **End**

NEW HOWMATIC "12" BENCH AND TABLE

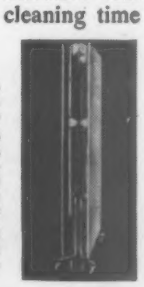


OPENS IN 3 SECONDS!
FOLDS IN 3 SECONDS!

The new HOWMATIC "12"* bench and table opens or folds in one, easy, *automatic* action! Opened, a foolproof safety lock grips this 12 foot unit automatically. Folded, it remains securely locked, the release bar at adult height.

Even in close quarters, the HOWMATIC is compact and maneuverable: Folded, the HOWMATIC's four, large swivel casters make the unit easy to move in all directions. Opened, four fixed casters on bench legs secure the unit firmly.

All HOWMATIC surfaces are always exposed for easy cleaning, even when the unit is folded. This feature—exclusive with the HOWMATIC "12"—cuts cleaning time up to 50%!



The new, 12 ft., benchless HOWMATIC "T". Unique Floating Action makes opening or closing this unit almost effortless . . . The center, castered legs touch the floor at all times; the four corner legs touch the ground only when the unit is fully opened ...They anchor the HOWMATIC in place. This eliminates opening and closing drag, makes the HOWMATIC "T" almost effortless to operate.

FREE! Get complete information on the BIG 3 in school mobile units: (1) the new HOWMATIC "12" Bench and Table, (2) the new benchless HOWMATIC "T" (3) the 6 ft. HOWE Bench and Table (*not illustrated*). For free, illustrated folder, use the handy coupon today!

HOWE FOLDING FURNITURE, INC. SM 58
1 Park Avenue, New York 16, N. Y.

GENTLEMEN: Please send me your free, illustrated folder containing complete data on the new HOWMATIC "12", the new, 12 ft. HOWMATIC "T" and the 6 ft. HOWE Bench and Table.

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Title_____
School_____
Address_____
City_____
Zone_____ State_____

*Pat. Pend.

HOWE FOLDING FURNITURE, INC.
1 PARK AVENUE, NEW YORK 16, N. Y.
If it folds—ask HOWE!

(For more information, see last page)

News from the business firms serving your schools

Lawn mower features safety and economy

The B-9 Hammer-Knife lawn mower, manufactured by C. W. Mott, Brookfield, Ill., is said to provide long range economy, safety, dependable performance and efficient mowing for all school requirements. It mows grass, weeds, and light brush with equal ease regardless of the ground roughness even when the ground is wet.

The mower's cutting principle permits safe use even when children are present. The downward cutting action of the Hammer-Knife draws in the grass as it cuts, shreds the clippings and spreads them evenly on the ground behind the mower eliminating the need for raking. If any objects are encountered while mowing the cutting knives fold back out of the way eliminating the possibility of danger from flying sticks, stones and other debris. The cutting knives can be easily sharpened by school maintenance men or replaced at dime-store prices.

For more information, circle number 783 on the Reader Service Card.

■ ■ ■

New method for controlling floor maintenance

It is extremely difficult, when a water emulsion floor finish is used, to be sure that a uniform film has been applied. The eye is not a reliable test, and whole areas can go unprotected in a visual examination. To eliminate this difficulty, a new floor finish has been marketed with a water-soluble fluorescent substance added. This makes the film visible under near-ultraviolet radiation, sometimes called "black light". The fluorescent dye may be added to any water emulsion floor finish, after which the film can be observed in order to evaluate uniformity of coverage and durability under use. A source of "black light" is readily available in standard fluorescent lamp fixtures. Unlike short-wave ultraviolet light, the long wave of "black light" is harmless to the eyes and skin.

The new method has been developed by Vestal, Inc., of St. Louis, Mo.

For more information, circle number 794 on the Reader Service Card.

■ ■ ■

Budget priced microscope introduced

To meet the need for improved instrumentation in today's rapidly expanding science programs, a new line of low-cost microscopes is now being

delivered by Bausch & Lomb Optical Co. These new Series ST Standard Teaching Microscopes are claimed to be the closest thing to a professional laboratory microscope ever developed for school use.

The new microscopes are of standard size and operation. Students can now learn correct microscopy from the start, with no habits to unlearn as they advance. The pre-focusing gage reduces damage to objectives and slides by pre-determining coarse focus.

A new 43X objective, with high resolution of 0.55 N.A., is claimed to

Literature Available From Manufacturers

Closed-Circuit TV: A 16-page booklet, "What Closed Circuit Television Means To You", published by Blonder-Tongue Laboratories, Inc. describes typical camera systems, applications, and equipment.

For a free copy, circle number 792 on the Reader Service Card.

Gym Equipment: A 16-page catalog offered by the Nissen Trampoline Co. includes photographs, features, complete specifications and prices.

For a free copy, circle number 786 on the Reader Service Card.

Acoustical Ceilings: A 12-page brochure, "Sound Conditioning for Schools and Colleges" put out by the Celotex Corp. has been edited expressly for school administrators and board members.

For a free copy, circle number 790 on the Reader Service Card.

School Planning: A four-page folder, "The Unit Plan for Greater Educational Flexibility and Economy" presents the views of Warren H. Ashley, a well-known schoolhouse architect.

For a free copy, circle number 789 on the Reader Service Card.

Drafting and Art Furniture: This 24-page catalog describes drafting and school equipment distributed by Stacor Equipment Co.

For free copy, circle number 788 on the Reader Service Card.

Library Furniture: A 20-page catalog published by Standard Wood Products describes their institutional furniture and offers library planning service for librarians and architects.

For a free copy, circle number 787 on the Reader Service Card.

Furniture: A 68-page catalog, "Wood Educational Laboratory Furniture" distributed by the Kewaunee Mfg. Co., is a helpful laboratory planning aid.

For a free copy, circle number 791 on the Reader Service Card.

Furniture: Fabric samples, prices and buying tips are offered in the new 26-page catalog published by the BeLa division of the J&J Tool & Machine Co.

For a free copy, circle number 785 on the Reader Service Card.

School Bus Products: A four-page bulletin describing safety products for use inside school buses is offered by the Transportation Products division of Samuel Moore & Company.

For a free copy, circle number 784 on the Reader Service Card.

provide the finest image quality and the flattest, distortion-free fields attainable with any school microscope.

For more information, circle number 798 on the Reader Service Card.

■ ■ ■

Economy intercom for schools

A compact desk-top intercom, designed to bring the advantages of a complete communication system to every school regardless of size, has been introduced by Executone, Inc.

From this low-cost unit, sound, public address and two-way intercom transmissions may be sent out to any classroom, any combination of classrooms or to all classrooms. The system also provides time signals in

conjunction with any standard single channel program clock.

The system has a combination four-speed record changer and AM-FM tuner, equipped with a self-contained amplifier and dual speaker system, which may be moved from room to room and used independently.

For more information, circle number 793 on the Reader Service Card.

■ ■ ■

Light weight floor machine featured

A portable floor machine for use in smaller areas has been developed by the Premier Co. This new machine weighs 33 pounds and is powered by a ⅓ hp 115—AC constant speed motor. Spattering is eliminated by factory setting of brush speed. An optional wheel assembly can be attached by securing one screw.

For more information, circle number 781 on the Reader Service Card.

■ ■ ■

Portable projection screen clips over map hooks

A new inexpensive, portable projection screen has been introduced by the Luther O. Draper Shade Co. The Draper V screen is designed to fit over map hooks or roller brackets.

The mildew and fire resistant matt white screen surface gives clear projection, wide angle viewing, and requires no later re-finishing.

For more information, circle number 796 on the Reader Service Card.

■ ■ ■

Complete line of trampolines available

A complete line of trampolines that meet AAU and intercollegiate specifications, has been added to the Game-Time, Inc., line of school and playground equipment.

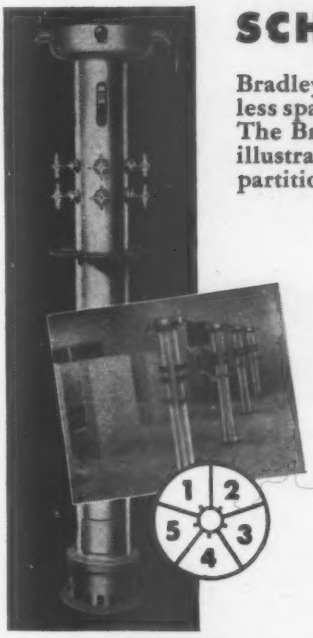
There are six trampoline models with bed sizes from 18 to 98 sq. ft.

Special features include a three-way fold for easy transportation and storage; welded tubular steel frames with

dual side and end rails and triple bridged leg sections.

For more information, circle number 782 on Reader Service Card.

BRADLEY WASH AND SHOWER FIXTURES ARE POPULAR FOR SCHOOLS AND COLLEGES



Bradley Multi-Stall Showers provide more facilities in less space, are economical to install, and ultra-sanitary. The Bradley Shower consists of a basic column (see illustration at left) to be installed with or without partitions and curtains.

Each Column provides for 5 persons, each with complete control of water temperature and volume. For a 5-person shower, *one* set of piping connections suffices.

Recent Washfountain and Shower Installations Include:

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School of Medicine, Ste Foy, Quebec
Ft. Sanders School, Knoxville, Tenn.
Edmonds Sr. H.S., Edmonds, Wash.
Silver Bay H.S., Silver Bay, Minn.
Loveland Jr. H.S., Loveland, Colo.
H.S. Project, Fort Dodge, Ia.
Boyd H.S., Macon, Ga.
Palmyra School, Palmyra, Ill.
Technical H.S., El Paso, Tex.
Corvallis Jr. H.S., Corvallis, Ore.
Bell Twp. School, Chatham, Ill.
Wayne University, Detroit, Mich.
High School, Junction City, Kans.
Highland H.S., Salt Lake City, Utah
Glenarm School, Glenarm, Ill.
Waco H.S. Fieldhouse, Waco, Tex.
Acalanes H.S., Lafayette, Calif.
Shawnee Mission H.S., Johnson, Kans.
Central Catholic H.S., Lawrence, Mass.
Bellingham School, Bellingham, Minn.
Carmel School, Carmel, N.Y.
Michigan State College, Lansing, Mich.

For girls, Bradley Showers equipped with partitions and curtains are preferred.

Bradley 54-in. semi-circular Washfountains like these serve up to six students. Foot control—no faucets to touch.

For Sanitary Group Wash Fixtures Install Bradley Washfountains

Up to 10 wash simultaneously at a Bradley—all served clean running water from central sprayhead. Require less space—cut piping connections by 80%.

For specifications, all models, see Catalog 5601—copy mailed on request. BRADLEY WASHFOUNTAIN CO., 2343 W. Michigan St., Milwaukee 1, Wis.

BRADLEY *washfountains and showers*

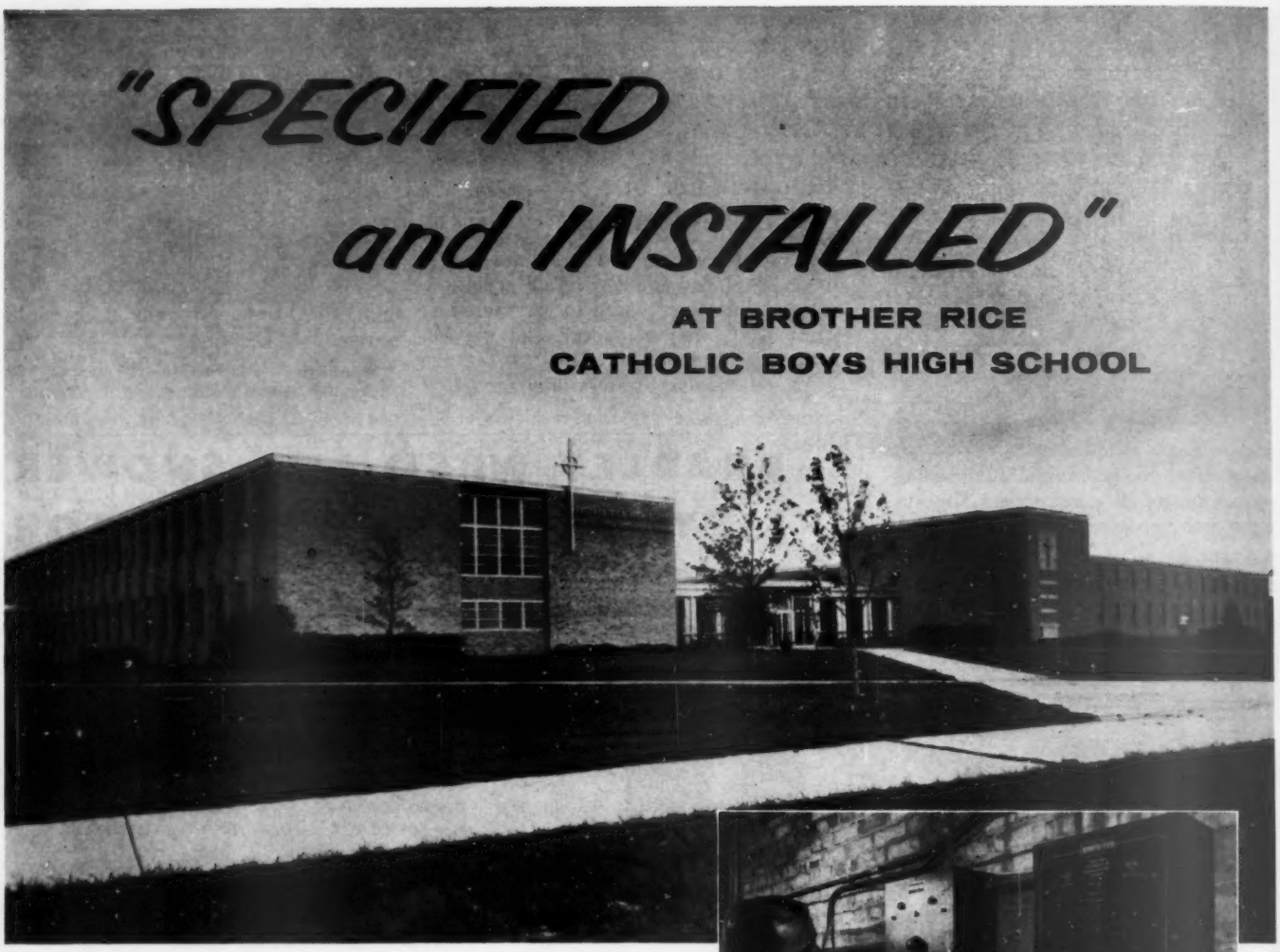
Write for Catalog 5601

Distributed Through Plumbing Wholesalers

(For more information, see last page)

"SPECIFIED and INSTALLED"

AT BROTHER RICE CATHOLIC BOYS HIGH SCHOOL



Brother Rice Catholic Boys High School, Chicago, Illinois.
Architect and Consulting Engineer: FOX & FOX.
Contractor: MAURICE S. FOX CO.
Wholesaler: JAMES B. CLOW & SONS, INC.

ALL DUNHAM-BUSH HEATING PRODUCTS

Dunham-Bush heating (and air conditioning) products . . . "specified and installed" in another school building.

One-Source, One Responsibility makes sense to everyone concerned with heating in new schools and school modernization from school officials to contractor. That's why the school heating trend is to Dunham-Bush.

At the Brother Rice school, for instance, Dunham-Bush pumps, unit heaters, convectors, controls and specialties were "specified and installed".

Your Dunham-Bush sales engineer is nearby to assist you in your school heating plans. Write for his name and free school heating brochure.

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(For more information, see last page)

The Winnetka report

continued from page 26

during the first 10 years (about 8-10% of the young teachers per year). Merit increments after reaching the 10th step are from $0 to $400 in $100 units depending on the relative merit of the teacher.

"My last criticism is of the two year period for attaining the initial schedule. Many teachers have been caught in this snare when year after year boards of education have found it necessary to adjust their schedules upward to meet inflationary trends. Rather than give a large increment to bring a teacher to a just salary, the boards apportion it and, when subsequent raises are made, the teacher finds he never quite catches up.

"The supplemental benefit plans seem excellent to me. Again implementation of some of these plans will be restricted in some states by law."

"I shudder when I relate the total dollars"

E. G. BURNKRANT, *Superintendent*
Wauwatosa, Wis.

"The report should be made available to every citizen in the United States . . .

"Although the salary objectives are most excellent, I shudder when I relate the total dollars involved to our 400 teachers in Wauwatosa. I am afraid this is the nub of the whole problem. In a state such as ours, the bulk of public school finance is based on the local property tax. This source of revenue is about exhausted. If schedules such as Winnetka's are to receive popular support, some other source of revenue will have to be found.

"Regarding the schedule itself, the only question I would raise is that of the salary relationships between the teacher and the principal. I understand that the accepted differential between the highest paid teacher and the principal is one to 1.5. A Winnetka principal would not seem to approach even the 1.2 figure, at least on the Table VI level. Wouldn't the use of a ratio or percentage, rather than a flat amount of money, have been better?"

"Seriously crippled by limited tax base"

GLENN L. SECOR, *Superintendent*
Burr Oak, Mich.

"Its earnest conclusions, while practical and realistic for a system with the financial base behind them such as they have, would be seriously crippled by the limited tax base of many small school districts."

"Lower third get into teachers colleges"

W. H. MARSHMAN, *Chairman*
Board of Education, Simsbury, Conn.

"The Winnetka report is a fine documentation of many of the things we have been thinking of and working with for many years.

"I can't agree entirely on the long range planning. They make several references to the probable necessity of changes through the years, but with the possible change in the board personnel, and national economic changes, it seems as though some of the future problems would be better met as they come up.

"I'm not sure their ideas on merit rating are workable. If we can't pay our better teachers more money, what can we do for them? A shortage of teachers may not be conducive to obtaining better teachers, especially when most of our top high school students get into the colleges of their choice and the lower third of the class are accepted by our teachers colleges. I know high marks do not necessarily mean the making of a better teacher but the average must be in that direction."

"A lasting contribution to educational literature"

PAUL J. GELINAS, *Supervising Principal*
Setauket, N. Y.

"Thank you for the Winnetka report. Again I am somewhat amazed at your ability to dig out the best thinking in another educational area of vital importance.

"This article will remain a lasting contribution to educational literature. Although the recommendations are not equally applicable to all communities, the criteria established for the profession, and the practical analysis of the *place of teaching* in our national life, are two parts of the report which reflect most effectively the clear thinking of this committee.

"Your periodical is unique; the few copies issued have already established it as the most authoritative publication now available in the field of education."

"A broad view of the salary problem"

CHARLES M. GREELEY, *Director of Business*
Peoria, Ill.

"The study is good, very good in that it takes a broad and long time view of the salary problem.

"We can build fine school buildings, we can establish the best in the way of a curriculum, we can provide the finest equipment, we can employ outstanding administrators and supervisory staffs but unless the classrooms are supplied career minded and well-trained teachers who are paid and paid well for the work that they do, much of our efforts will have lost their real values.

"I would like to say thanks for your willingness to publish studies such as this one."

"Will attract poor and mediocre teachers, too"

P. O. VAN NESS, *Executive Secretary*
Pennsylvania School Directors Assoc., Harrisburg, Pa.

"I am sorry to find this distinguished group of citizens opposed to merit rating. They seem to be somewhat contradictory in some of their findings especially where they recommend 'markedly distinguished salaries for those teachers who make substantial and measurable contributions.' Again, it states that 'the teacher shall progress successively from the lowest to the highest step so long as his work is satisfactory.' Under the same item it states that a teacher whose

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ALL-NEW General

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E-Con-O-Vac Vacuums

Revolutionary New
Faster, Better Cleaner!
Quality-engineered for long life

Avoid Last Minute Planning When floor maintenance needs are planned —in advance —your needs are taken care of properly. Mail coupon now!

In 3 basic job-suited models

You Get All This!

Full swivel hose connection✓Both intake and exhaust openings in head✓Durable cast aluminum head✓Recessed "out-of-the-way" carrying handles✓Big heavy duty resilient wheels✓For both wet and dry pickup, with no changes necessary✓ Dual use — as vacuum, and powerful blower✓ Convenient push-pull handle✓ New, more powerful motors✓New, quick snap-on floor tools and other accessories✓Convenient tool basket.

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General FLOORCRAFT INC.
421 Hudson St., New York 14, N. Y. Established 1930
World's Most Complete Line of Industrial and Household Floor Maintenance Machines and Vacuums
All Sizes for All Types of Floors — Made by Floor Machine Specialists

DON'T WAIT —AUTO-MATE your floor maintenance! Mail coupon for details.

( ) Have Distributor call on us.
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(For more information, see last page)

normal increment is not granted shall be so notified in writing which shall specify the unsatisfactory conditions causing the withholding of the increment.

"I think this committee has also failed to recognize the fact that these salary schedules will attract not only good teachers but poor and mediocre teachers who, in many states, soon gain tenure status and cannot be dismissed easily."

"Some concepts which I had overlooked"
MALCOLM A. LETTS, *Superintendent*
Middlebury, Conn.

"It would be wonderful if every member of every fiscal authority could read the report. After 20 years in education, these people have presented to me some concepts which I had overlooked.

"I was particularly interested in their approach to merit rating, since these men are, for the most part, executives in industry. It is refreshing for us in education to be able to feel that other groups feel that teaching is not a production line. . . ."

"We intend to use this report as a guidepost"
K. R. HAMPTON, *Member*
Board of Education, Eatontown, N. J.

"As usual, your magazine is providing a much needed service to many towns in our country. Our current school budget . . . was defeated twice at the polls, and subsequently reduced. The school board was able to hold the line on the proposed teacher salary guide, which is good. However, the teachers' salary proposals are still under attack and if a thorough presentation is not given to the people of the town, the issue will be defeated again next year at budget time . . .

"We intend to use this report as a guidepost in gathering material for our own town. Thanks for the service you are giving us. Your magazine has become somewhat of the criteria for us in this area."

"A step forward for American education"
JAMES V. MOON, *Superintendent*
Rochester, Minn.

"I have read your report of the Winnetka Citizens' Advisory Committee on Teacher Salaries. I have been following this for some time with Sid Marland and feel that this is a step forward for American education . . . It is helpful for publications such as SCHOOL MANAGEMENT to get this information to the school boards of America."

"The proposed schedules are minimal"
W. H. FERRY, *Member*
Board of Education, Briarcliff Manor, N. Y.

The Winnetka Citizens' report on salaries is a first-rate analysis and SCHOOL MANAGEMENT has performed a signal service in making it available to school boards. One would, however, expect a startling revision of salary schedules after such an analysis, and it is anti-climactic to discover that the proposed new schedules are minimal in some respects and illusory in others. For example, raising the starting schedule from $3,900 to $4,200 is something the Winnetka district might

have had to do for competitive reasons even though a citizens' group had never entered the picture. It is scarcely fair either to suggest that the proposed schedule now provides a maximum of $12,000 when 'now' means 1968 for a Ph.D.

"Despite these caveats I regard the Winnetka report as an able exposition of the situation of the US public school teacher. It can stand as a model for any district wishing to make a self-examination of its own strengths and weaknesses in this most important area of school operations."

"Would attract the type of people we need as teachers"
T. S. HILL, *Superintendent*
Dexter, Mo.

"The Winnetka plan is the most complete and sensible approach to the problem that I have seen. Basically it is sound and could be adapted to the situation in most other communities. . . .

"It would attract the type of people whom we need as teachers."

"Plan would not go over in many districts"
GUY J. RIZZO, *Superintendent*
Nahant, Mass.

. . . Unless there is an excellent plan of public relations, the plan would not go over in many communities because of its length, its reference to such things as 'dignified living standards,' and the technicality of its presentation to people of average ability.

"It is a thorough, praise-worthy plan that would elevate the teacher not only to a professional position but also to a comparatively equal one with other fields of endeavor."

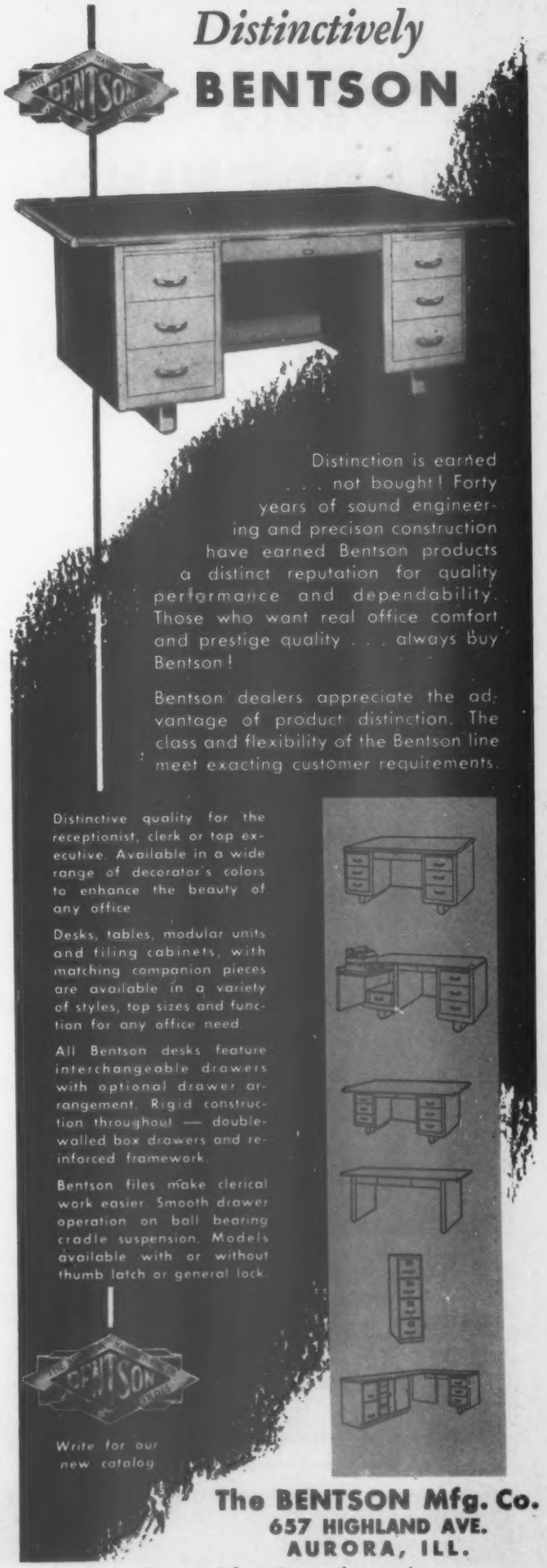
"Not much hope . . . on the local-financial basis"
J. A. HUGHES, *Superintendent*
Forest Lake, Minn.

"I am tremendously impressed by the analysis of the situation, the identification of crucial problems, the proposal of bold and imaginative solutions. I am less enamored of the solutions . . . the proposed Winnetka schedule will fall from $1,000 to $1,500 short of the average paid college graduates by business at the five, 10, 15, and 20 year marks . . .

"After commenting wryly on the 'year-by-year accretion of small and sometimes bitterly contested salary gains for teachers,' the committee gets around to . . . the frank confession that the full schedule probably cannot be implemented under present conditions. Not even in Winnetka! The committee allows its distaste to override its logic, and concludes with a plea to be courageous and keep the responsibility for public education largely at the local level . . .

"Let's face the facts. If a community like Winnetka cannot solve its school problems without some sort of panacea calculated to increase the teaching load substantially, there isn't much hope for education in these United States so long as we remain on the local-financial basis.

"I don't think that you can solve national problems at the village level." **End**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Bentson dealers appreciate the advantage of product distinction. The class and flexibility of the Bentson line meet exacting customer requirements.
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Desks, tables, modular units and filing cabinets, with matching companion pieces are available in a variety of styles, top sizes and function for any office need.
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(For more information, see last page)

What's
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School Lockers
A new locker lock by Sargent & Greenleaf, Inc., who for over a century has spoken to its vast trade in government, institutions, and commerce in terms of security and fine quality. For security and durability are the keynotes of a good, dependable lock.
The value of this know-how cannot be over-estimated in terms of durability, security, function and operation. Compare any lock with the new S/G 8020 locker lock features shown on the check list below. We know you'll agree, the S/G 8020 will become the standard by which other makes will be measured.
. . . And perhaps the best news of all—The S/G 8020 COSTS NO MORE than other makes now in use.
Spy-proof dial minimizes expensive claims of theft.
Combinations may be changed frequently and quickly without opening the door or disassembling the lock.
Screw assembly (no rivets) means maintenance on the spot.
Locker may be locked or latched at option of user.
Produced By
SARGENT & GREENLEAF, INC.
Rochester 21, New York.
(For more information, see last page)

Teacher shortage

continued from page 37

of them, mothers of students, varying widely in secretarial skills, who relieve the teachers of paper work and most other non-teaching chores that any normal adult is able to do.

Despite the teacher shortage, San Angelo was able to hire remedial teachers and aides without sacrificing standards.

How the program works

Although some flexibility is provided, San Angelo gives its teachers assistance on this general basis:

1—A teacher with less than 29 pupils receives no help, except clerical assistance previously provided by the principal's office.

2—Teachers with between 30 and 32 students receive extra help from the principal's office force, depending on the amount of paper work to be done.

3—Teachers with more than 32 students are entitled to up to three hours of assistance daily. This aid can be solely that of a secretary, or a remedial teacher, or an aide, or a combination of any two up to a maximum of three hours per day. Explains Wadzeck:

"The size of the classroom determines to some extent which type of assistance a teacher can use. If the room is small, she might prefer remedial help which would remove eight to 12 children from the classroom for training elsewhere.

"If the room is large—up to 1,000 sq. ft.—it is not necessary for the remedial group to move elsewhere. Two teachers working in the same room seems to be effective."

Space for remedial classes was provided in some San Angelo schools by dividing large rooms into small ones.

A teacher was allowed complete control over her assistants, either aide or secretary, although the type of work either could do was specified by the principal's office after a conference with the teacher.

Normally, says Wadzeck, no teacher was allowed to have more than 35 pupils, even with assistance. However, in some San Angelo schools where all classrooms were crowded, a few teachers might have as many as 37 or 38 students. In these cases, special consideration was given, with increased remedial and secretarial help. Wadzeck says he and the board felt this was preferable to establishment of half-day sessions, the only other alternative.

High schools, too

So successful has the program been, that plans are under way to extend it into the secondary schools.

Says Wadzeck: "With some changes, I see no reason why this program would not work efficiently in our secondary schools. The type of assistance would have to be different, because a secondary teacher would need qualified help in grading papers and in using audiovisual aids, for instance."

Wadzeck believes a program of more efficient teacher utilization can be applied to any school.

"For example," he explains, "a 10-room school is big

enough to justify a half-time secretary for the principal. If there are two or three teachers in this school with heavier-than-normal student loads, the secretary's remaining time could be divided among them on an equitable basis."

Wadzeck also believes the time will come when every public school administrator will begin to examine more closely the utilization of available teaching talent.

"The shortage of classrooms and teaching personnel has created serious problems for many school districts. At the moment, many educators are rejecting the idea of change without first analyzing the problem. In so doing, they are contradicting what teachers have been saying for years: That they spend a large part of each day doing chores that are not related to teaching. Relieved of these chores, they can do a much better job of teaching."

One obstacle

Biggest hurdle for any school administrator, however far-sighted and concerned, may very well be his own school board.

"School administrators and teachers," declares Wadzeck, "cannot do many things they should do because of the attitude of their community and their board of education.

"If anyone questions this, I would suggest they simply ask school board members if they would consider giving teachers secretarial help. I believe that 90% of the board members would veto such a proposal unless it was fully presented so they could understand that it actually means doing a better job for less money.

"If the people really want efficiency in their schools, I feel we must return to the attitude that prevailed many years ago when the professional educator received more consideration and respect in matters of education."

Children learn more

From the standpoint of the student, San Angelo's program apparently scored a distinct success in its first year. Wadzeck says achievement tests given at the beginning and end of the year indicate that youngsters in rooms where teacher aid was provided made greater gains in learning than those in non-aided classrooms, regardless of the size of the class.

Wadzeck says he does not accept such tests as conclusive evidence, but in the absence of more complete controls, it can be safely assumed that their learning achievements were just as great as the students in other classes.

The teachers themselves, Wadzeck reports, agree with this conclusion.

From the teacher's standpoint, the program has been a blessing. They are able to spend more time with individual students and do not feel as tired as they once did at the end of the day.

Most interesting of all, says Wadzeck, is the fact that teachers requested larger classes so they would be eligible for assistance. This is viewed as the best indication that teaching talent had not been utilized to its fullest in the past. **End**

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(For more information, see preceding page)

Weldwood red oak paneling, Midland School, Rye, New York. Architects: Emilio di Rienzo and Warren S. Holmes Company.

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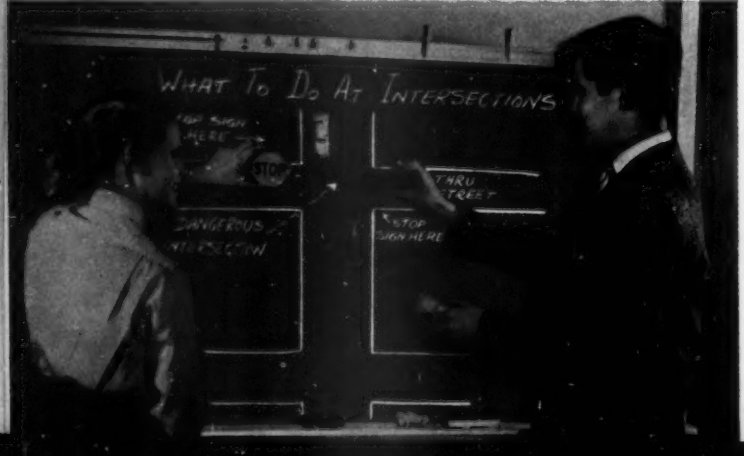

Weldwood natural and painted birch built-ins provide a warm, friendly atmosphere at New Preston School, New Preston, Conn. Sliding doors, clothes racks, and benches often save enough on space alone to pay for the entire installation! Architects: Nichols and Butterfield.